

THE
PENN MONTHLY.

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THE MONTH.

THE condition of Spain is not improved. Carthagenas has been the scene of a revolt which at one time bade fair to overthrow the power of the Republican government at Madrid. The irreconcilables or intransigents who are ambitious to play in Spanish troubles the role enacted with such success by the Communards of Paris, seized several ships of the Spanish navy and started a republic of their own at Carthagenas. The steady loyalty of some of the garrisons, added to the distrust of popular movements—one might say the apathy of the people—saved the republic for the time. The insurgents have accomplished nothing; the ships have been unable to effect a landing, having been driven off in several places, and at last accounts the new masters of Carthagenas were making overtures for surrender. It is to be hoped that the revolt is at an end. It is of course impossible to speculate with anything like certainty of the result of the present condition of the Peninsula. Don Carlos may reach Madrid, but the army is not devoted to him, and in case of a temporary success he would probably only make way for Don Alfonso. It would not be surprising, after all, to see a reaction take place after the excesses which have filled the last few years, ending in the restoration of Isabella's family. The history of England affords one, and that of France at least two, examples of such an event, and just now it seems to be one of the least improbable of the uncertainties of the Spanish future.

THE French Assembly has had one or two very strong debates—noisy and turbulent even for that dignified body. One of these occasions gave M. Gambetta an opportunity which he well improved to make an eloquent and brilliant speech. But the day has long gone by when a speech affected the result of such contests. Where the feeling is marked and decided, a striking figure or eloquent appeal may deepen and strengthen it, as in the debate in which d'Audiffret-Pasquier likened Alsace and Lorraine to the lost legions of Varus, and excited the feelings of his hearers to the utmost, but it is to be doubted if it be possible for any orator, at the present day, to overcome prejudice or break into pieces, by any power of speech, the chains forged and riveted by political management and intrigue.

The *Nation* calls attention to the discussion now going on in the English journals on this subject, and seems to think that the day of oratory is over. The system adopted here of carrying on legislative business forbids the cultivation of oratory by robbing it of practical effect—the habit of writing speeches is death to true debate, and the customs now so successfully practiced, of lobbying and log-rolling, put on the finishing touches. The gift of eloquence is very apt to be undervalued in a country where money is the standard of worth, and is sure to be despised by those who have it not. The taste of the age, too, is growing less favorable to speech-making, and the orations of M. Gambetta or of Senor Castalar are far less effective now than they would have been fifty years ago. Oratory is going out with the romantic and the picturesque.

THERE has been no rejoicing of a public nature over the retirement of the Prussian troops from French territory. It is said that Prince Bismarck has been induced to consent to a speedier evacuation than was at first intended, by the discovery that the constant habit of the French of all classes to criticise and laugh at everything and everybody was beginning to have its effect upon the troops of the empire. Such a habit among German troops would certainly be injurious to discipline and fatal to that blind faith in “things above,” which is the strength of the Prussian service; and his Excellency, the Chancellor of the Empire, would be the last man to encourage its development. Such at least is the story.

ONE of the events in England during the last month was the debate in the House of Commons on voting a settlement to Prince Alfred. His Royal Highness has announced his intention of marrying the daughter of the Czar, and in accordance with time-honored custom, his mother has petitioned her most loyal Commons for a handsome allowance for the young couple. Mr. Gladstone's speech, according to the report, must have been as broad and general as some of those which have been made in the United States Senate, for we are told that he eulogized the Czar at great length and spoke eloquently of the emancipation of the serfs. His attempt to prevent any little unpleasantness, by deprecating discussion which would take away from the spontaneous and gracious nature of the act, was unsuccessful. A debate followed, in which things were said that would have been high treason in the happy days of George the Third ; and though the allowance was voted by a large majority, the journals have been teeming with paragraphs and leaders on the subject ever since. Of course the known fact, that the Queen is very rich and very parsimonious, gives rise to the feeling that she ought to foot her bills—and for this she is to blame. Her allowance from the state is very large, and she does not spend any part of it as she ought to do—in what is, after all, the business of her life—in entertaining and keeping up the splendor of the Court. But after all, it might be well for some of the gentlemen who are making the most noise over this matter to investigate the cost of a republic in its various departments—its presidential elections and the like—before they insist on so radical a change as they sigh for on the ground of economy.

BESIDES the marriage of the Duke of Edinburgh, his brother, Prince Arthur's, is announced. The bride in this case is the Princess Thyra, a younger sister of the Princess of Wales, another capital match for a child of that obscure Prince Christian of Glucksburg, who has lived to see himself a king of Denmark, his son a king of Greece, and his daughters a future queen of England, and a future czarina of all the Russias. The Princess Thyra and her husband will of course be entirely ornamental, and there may therefore be some prospect for them of happiness.

THE sudden death of Dr. Wilberforce, Lord Bishop of Winchester, occurred on the 19th of July. He was thrown from his horse, while riding with Earl Granville, and was instantly killed. He was third son of the excellent philanthropist, and inherited many of his father's brilliant qualities. A skillful debater, an eloquent speaker, a powerful writer, a graceful wit and a perfect man of the world, he was the most effective champion of the High Church party in England. Among his opponents he was not much beloved nor greatly respected, the nick-name of "Soapy Sam," which was applied to him, giving no great evidence of veneration. Few if any prelates in the English Church are more generally known. He was in the sixty-eighth year of his age. Lord Westbury, who died the day after the Bishop, is chiefly known in this country as having been Lord High Chancellor. He was one of the most eminent equity lawyers in England, but was chiefly remarkable for his powers of satire and his biting wit. Some of the severest things ever said in the House of Commons came from Sir Richard Bethell's lips. He was just seventy-three.

THE Republican Convention which met in Lynchburg, Va., to nominate State officers, was the scene of an amusing row, in which a colored delegate found it necessary to call the president of the convention an "old ass" and other complimentary names. After considerable excitement and confusion a nomination was made, and the nominee made a long speech. The conservatives, as they call themselves, have also made up their ticket, which will no doubt be successful. The name of Mr. Greeley was a great weakness to the Democrats in Virginia last year, and was the direct occasion of their defeat. The causes which led to that are now removed, and the Republicans will accomplish a remarkable feat if they succeed in naming the successor of Governor Walker. The campaign will probably be an exciting one.

SEVERAL disastrous fires have marked this month. Baltimore, and Portland, Oregon, have suffered severely, while a fire has consumed many vessels and several docks, in Portland, Maine. Of course, after the great fire of Chicago, and the other at Boston,

such conflagrations as these cause comparatively little excitement ; but in each case, the loss has been very heavy. The year has been a hard one on insurance companies. From England we hear too of the burning of the Town Hall of Leeds. The good that may come out of all this is perhaps the erection of more substantial buildings, and the less frequent use of the wooden Mansard roof on stone walls. Brick, too, is again coming into more general acceptance, and the improvement in taste shows itself in the color which is found in many new buildings. One is not now confined strictly to the red pressed brick and white marble which has made so attractive to the eye the streets of our beloved Philadelphia. A man may adorn the front of his dwelling with yellow and black bricks, and yet keep up the appearance of respectability and even indulge in the dissipation of colored tiles without seriously affecting his standing in the community. Such has been the progress of the human mind !

A VERY distinguished lawyer, one of the few of that profession who have attained a more than local reputation ; a statesman, who lived to see the full consummation and triumph of his principles and his anticipations ; a politician completely partisan, but of unquestioned honor ; successful without bribes, powerful without intrigue ; holding office for love of the work, even though that work might be in the uncleanly mill of a Pennsylvania administration and dying at his place, William M. Meredith has filled up the rich measure of his brilliant life. To the older members of the Philadelphia bar, his loss is that of a contemporary and friend, the link between the traditions of the past and the questions of the present—to the young lawyers, his career is of the first importance as a study of success, and their tribute to his memory is the intense interest and admiration which those who are ambitious and unknown feel toward the man who has achieved. To the country at large he will be remembered for the bold and wise stand he took at that, perhaps most critical, point of its history, the meeting of the Peace Convention in the autumn of 1860, when he gave his voice for honorable war and against concessions which could bring no lasting peace.

THE Committee on Plans of the Centennial Commission has awarded the thousand dollar premium to the authors of ten of the forty-four designs offered in the open competition. All the drawings were exhibited publicly in the hall of the university for some days before the decision. As a whole, the designs were disappointing to those who had expected to find in them some of that originality and ingenuity which are considered our peculiar national gifts. In the greater number the plans were either impossible or wretchedly bad, and the elevations were, architecturally, beneath contempt.

Of the small number of respectable designs, several would have required four or five years to erect, and would have cost sums far in excess of the probable resources of the Centennial authorities. Two or three designs, however, displayed care and skill in the plan arrangements, and offered elevations which, if not noble, were at least unobjectionable, and could be built within the necessary time, and for a sum of money within the reach of the Commissioners.

Very few of the architects appear to have taken into consideration the fact that the Memorial Building is to be permanent, whereas the wings and other portions of the building are to be used only for about six months and then to be taken down. In the larger number of designs, it is not easy to determine which are the temporary and which the permanent parts.

Of course it is extremely difficult to give a homogeneous character to a group of buildings with these requirements, but one or two of the designs were almost, if not altogether, successful in the effort. The ten premiated designs have been photographed and the accompanying explanations printed, and each of the successful competitors has been furnished with a complete set of these, with power to make use of any suggestions or ideas therein contained, in the preparation of designs for the second or limited competition. The idea is at least novel and very possibly is disagreeable to the few architects who have really worked out their plans with thought, and have brought forward ideas worth appropriating. One thing, however, should be well settled: the successful architect in the next competition (which will, we believe, be decided within two months,) should be allowed to carry out his design. It is an every-day occurrence with us for an architect's design to be accepted—and then handed over to some builder to be carried out. Such designs are generally distorted in execution. The author is naturally the best interpreter, and a design can only be executed in a spirited manner under his supervision.

STATISTICS

RELATING TO THE BIRTHS, DEATHS, MARRIAGES, AND MOVEMENT OF
POPULATION IN THE CITY OF PHILADELPHIA, FROM JANUARY 1ST,
1861, TO JANUARY 1ST, 1872.

THE writer, in the course of his studies, found it desirable to tabulate some of the facts concerning the birth-rate in Philadelphia, and finding several tables¹ had accumulated in the course of his researches, has thought that extracts from these might possibly be of value to those interested in the subject, and he was, for this reason, induced to offer them for publication.

It is proper to state here, that the space allowed for this article precludes the introduction of many useful deductions and comparisons.

The movement of the population in one country, as compared with that of another, as well as that of the same place compared with preceding numerations, always a matter of interest, becomes more and more so as civilization advances, bringing with it evidences of physical and moral degeneracy, as evinced in the proportionally fewer marriages, in a smaller number of births to each marriage, a lessened birth-rate, a declining proportion of male births, increase in the proportion of male deaths, increasing proportion of females in the general population, increasing illegitimacy, increase in the proportion of inhabitants in cities over the country, and in some instances a slowly diminishing mortality; and, notwithstanding this last occasional occurrence, *always a declining* increase in population, which means that increase must cease in some dimly distant future.

It is no part of the purpose of the present article to prove these deductions, but merely to illustrate them by the movement of population in Philadelphia, the results agreeing in the main with those arrived at by most statisticians, particularly where the latter are *Physicians*. The acknowledged labors of Dr. J. M. Jones, of Washington, D. C., and Dr. Nathan Allen, of Lowell, Mass., corroborate the views taken in this article.

Philadelphia, with an area of $129\frac{1}{8}$ square miles (a length of

¹ The entire MS., including these tables and other detailed calculations omitted in this article, have been placed in the Library of the Historical Society of Pennsylvania, for reference, by any person who may hereafter undertake the compilation of statistics relating to this city.

23 miles, average width of $5\frac{1}{2}$ miles), or 82,700 acres, had a population, in 1870, of 674,022 souls, or 5,225 inhabitants to the square mile.¹

There were, in 1870, 127,746 families, having an average of 5.28 persons to each family. There were 112,366 dwellings, and 6.01 persons to each.² There were 490,398 native, and 183,624 foreign persons in the population. Of these, 651,854 were white, and 22,147 colored.

The population is very unequally distributed, as there are several farms, gardens, and parks (about 2,500 acres,) within the city limits, besides several small towns and villages. About 27.7 per cent. of its population are of foreign birth, from which, it is probable, that a proportionally larger part of the births are recruited, as one-half of the parents giving birth in Massachusetts (with a population 22.9 per cent. foreign) in 1860, were of foreign birth; and in New York city, the Registrar says that in 1870, "as usual, the children of foreign parentage greatly predominated" (9,282 parents foreign, 2,553 native). Hence, New York city, which had a population composed of persons of foreign birth, to the extent of 44.5 per cent., recruited 78.4 per cent. of its births from this same foreign element—or, in other words, more than three-fourths of the births were recruited from much less than half of the entire population: stating it differently, the native population recruit one birth from every 204.9 of their own number, while the foreign population recruit one from every 45.1, and are consequently more than four and a half times as prolific. In Massachusetts, as before stated, one-half of the births are recruited from less than one-fourth of the population (foreign), or foreigners are more than three times as prolific as the natives. With these facts before us, we are impressed with the belief that Philadelphia, with a population of 27.7 per cent. foreign, must recruit more than three and a half times as many births, propor-

¹ Chicago, with an area of	223	square miles, has	1,350	inhabitants to each.
London,	"	"	122	"
Boston,	"	"	110	"
San Francisco,	"	"	90	"
Paris,	"	"	63	"
Pekin,	"	"	56	"
N. Y. City,	"	"	22	"
			43,000	"

N. Y. Medical Record, May 15, 1873, p. 240.

²New York (1870) had 64,044 dwellings, with 14.72 persons to each, and 185,789 families, with 5.07 persons to each.

tionally, from its inhabitants of foreign birth as from the natives. It is greatly to be regretted that the nativity of parents¹ of children born in Philadelphia, as well as their ages and the number of the pregnancy, should not be recorded.

Births by years—boys to 100 girls² :

[illegible]

Average males to 100 females dying 1860-1872 (still-births deducted).....112.29

" " " " " (still-births *not* deducted).....113.44

Number of males in the population 1860, to each male dying, 1860-1872.....	33.5
“ females “ “ “ female “ “	39.4

Annual average for 11 years (1860-1872):

	<i>White.</i>		<i>Colored.⁶</i>		<i>Still-born.</i>		<i>Illegitimate.</i>	<i>Twins.⁷</i>	<i>Triplets.⁸</i>
Tot'l Births	Males.	Females.	Males.	Females.	Males.	Females.	(Estimated.)	(Pairs)	(Cases.)
16,338	8,582	7,756	128.4	127	437	325	680	155	2.2

Yearly difference between births and deaths⁹ :

(Plus sign indicates excess of births ; minus sign excess of deaths.)

1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	Average.
+2803	+852	+1220	+526	-143	+1277	+3560	+3124	+2689	+1055	+1986	+1723

¹See reference to the author's paper on "Effect of Nationality of Parents on Fecundity and Proportion of Sexes in Births."

² Boys to 100 girls born in N. Y. city, 1853 to 1870, 107.8.

³ Rebellion began in spring of 1861; many soldiers discharged in 1863-4, and all in 1865.

⁴From 1670-1675, in Paris there were 5 births to each marriage; from 1764-1775, 1 marriage to 4 births; from 1864 to 1869, 1 marriage to 3 births.—*Chevallier et Lagneau—Ann. d' Hyg. Pub., July, 1873, p. 57.*

⁵ In New York City, 1860, among whites, 95.23 males to 100 females; among colored, 76.13 to 100.

⁶ Census of United States for 1870, compiled by General Walker, gives total deaths of colored males, 34,241; females, 32,942, or 103.9 males to 100 females; white males, 225 818; females, 198,322, or 113.8 males to 100 females. The deaths of white males under 1 year amounted to 52,402; females, 42,152, or 121 males to 100 females; white males under 5 years, 93,928; females, 79,776, or 117 males to 100 females. The proportion of male deaths among the colored population is greater than among the white, though the above figures would

Conceptions by months and seasons—boys to 100 girls, 1861—1872 :

	Spring.			Summer.			Autumn.			Winter.		
	Mar.	Apr.	May.	June	July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	107.2	114.8	113.9	106.4	109.4	110.8	110.3	107.5	109.2	107.3	110.6	112.4
	112.			108.9			109.			110.7		
Average No. }												
Conceptions. }	1,068			987			1,029			1,070		
Average No. }												
Marriages. }	1,454			1,395			1,687			1,591		

Months in order of decrease of male conceptions—boys to 100 girls :

Apr.	Feb.	May	Aug.	Jan.	Sept.	July	Nov.	Oct.	Dec.	Mar. ¹⁰	Jun.
114.8	114.2	113.9	110.8	110.6	110.3	109.4	109.2	107.5	107.3	107.2	106.4

Months in order of decrease of conception, both sexes, (all brought to 31 days): February, April, November, January, June, March,¹⁰ December, October, May, September, July and August.

Months in order of decrease of marriages (all brought to 31, days): October, December, November, September, January, April, June, May, February, July, August, March.

Conceptions compared with marriages by quarters :

	1st Qr.	2nd Qr.	3d Qr.	4th Qr.
Percentage of Conceptions.....	26.27	25.06	22.95	25.75
“ marriages.....	23.84	24.23	23.85	27.96
Boys to 100 girls.....	110.67	111.70	110.17	108.00

indicate the opposite, owing to the much smaller proportion of males in the colored population. This greater mortality was forcibly shown in a recent article by the writer—“On the Relative Viability of the Sexes,” etc.—*New York Med. Record*, June 16 and July 15, 1873, pp. 297-302, 353-4-5.

Mr. Tulloch says that “the mortality of the slave population of the West Indies is very much greater in the male sex than in the female, the proportion in adults being nearly double among males.” M. Rickman found the average mortality for 5 years preceding 1830 to be 1 in 51, while in the negro population it had been 1 in 36.—*British and Foreign Med.-Chir. Review*, Vol. iv., p. 262.

Total Labors.

⁷ Twin labors in entire city (1860-1872), 1,740, or 1 in 105 labors.....182,627
 “ “ almshouse (1864-1869), 14, or 1 in 85 “ 1,200

⁸ Triplet cases in entire city (1860-1872), 25, or 1 in 7,269 labors.....182,627

⁹ In 1872 the births amounted to 20,072; deaths, 20,544. Excess of deaths over births, 472.

¹⁰ Lessened proportion of boys probably due to devotions and fasts of the Lenten season. In Paris, 1670 to 1787, number of conceptions in Feb., 907; March, 857; April, 1,000.—*Villermé*.

Spring conceptions in England, 7 per cent. over that of any other quarter.

¹¹ New York city, (1870), boys to 100 girls, 1st quarter, 99.01; 2d quarter, 114.7; 3d quarter, 110.41; 4th quarter, 110.6.

Decade of 1821-1830, compared with the foregoing of 1861-1872. Conceptions by months and seasons—boys to 100 girls, 1821 to 1830:

<i>Spring.</i>			<i>Summer.</i>			<i>Autumn.</i>			<i>Winter.</i>		
March,	April,	May.	June,	July,	August.	Sept.,	Oct.,	Nov.	Dec.,	Jan.,	Feb.
103.7	111.5	107	107.2	109.8	109.1	108.1	112.5	106	109.1	111.9	109.5
107.33			108.7			108.87			110.16		

Months in order of decrease of male conceptions (1821-1830): October, January, April, July, February, December, August, September, June, May, November, March.

Months in order of decline in conceptions—both sexes (1821-1830): May, December, March, April, February, June, January, November, October, September, July, August.

NOTE.—Effect of month of conception and birth on the expectation of life, exhibiting the percentage of deaths which occur within the first year after death:
Month of conception...Mar. April, May, June, July, Aug., Sept., Oct., Nov., Dec., Jan., Feb.
Percentage.....7.8 7.7 7.0 8.1 8.6 9.5 10.8 9.6 8.5 7.2 7.5 7.7
Month of Birth.....Dec. Jan., Feb'y, Mar., Apr., May, June, July, Aug., Sept., Oct., Nov

—Taken from Dr. E. Smith's book on Cyclical Changes. The cases, 3,050 in number, were taken from the "Register of the Counties of Durham, Northumberland, Westmoreland, and Cumberland (England). Population about 1,000,000, and scarcely any manufacturing towns." He ascribes the greater mortality of those born in months of May, June and July to the time of birth rather than to the time of conception.

Comparison of the birth-rate and movement of population in the poorest and richest wards (1861-1872):

	<i>Poorest.</i>	<i>Richest.</i>	
	1st Ward.	5th Ward.	8th Ward.
Population in 1870.....	25,817	18,736	22,286
Males to 100 females in population.....	101.09	98.18	71.84
Average percentage of births to population...	3.41	1.61	1.46
Average No. inhab. to each marriage annually	—	—	—
Average No. inhab. to each birth annually ...	27.28	61.28	68.65
Average No. inhab. to 1 death annually (4 yrs) ¹	36.50	42.00	57.00
Average No. boys to 100 girls born (1870)...	117.71 ²	—	—
Average No. inhabitants to each house.....	5.04	7.97	7.04
Average number persons to each family.....	4.86	5.51	6.23
Percentage of children born alive, dying under 5 years of age.....	—	—	—

¹M. Villot, prior to 1830, in Paris, found the deaths 1 in every 42 inhabitants in richest arrondissements, and 1 in 25 in poorest.

"Of 100 infants born alive to the gentry of England (1844), there died 20; to the working-classes, 50. In the aristocratic families of Germany there died, in four years, 5.7 per cent.; amongst the poor of Berlin, 34.5. In Brussels the mortality, up to the fifth year, was 6 per cent in the families of capitalists, 33,

Months (all of 31 days) in order of decrease of conceptions, compared by wards:

Poorest, 1st Ward—	Feb.	Dec.	Jan.	Apr.	June	Nov.	Mar.	Oct.	Sep.	July	May	Aug.
Rich- { 5th “ —	Apr.	Dec.	Feb.	June	Oct.	Jan.	Nov.	Sept.	July	May	Mar.	Aug.
est. { 8th “ —	Apr.	Dec.	Feb.	Jan.	June	July	Nov.	Oct.	Mar.	Sep.	Aug.	May
Entire City, —	Feb.	Apr.	Nov.	Jan.	June	Mar.	Dec.	Oct.	May	Sep.	July	Aug.

The comparison of the birth-rate, death-rate, and proportion of sexes born in the richest and poorest parts of a city, I have never met with in any of my researches, except the instances referred to in the foot note; and bring these facts together for the city of Philadelphia, for the first time. The wards chosen are the 1st, 5th and 8th. The first ward is located in the extreme southern part of the city, and is marshy and wet on its southern border; its inhabitants being of the poorer, lower and middling classes. The 5th and 8th wards, located in the central part of the city, represent the most wealth, culture and refinement, the “oldest families,” the 5th being a part of the oldest portion of the city, while most of the 8th is comparatively recent. In both of these last-named wards there is a mixture of all classes and colors, but the wealthy predominate; if they were occupied exclusively by the rich the statistical differences would be still greater. The relative density of population in these districts is not within my reach, but the 1st ward is much less closely built up than either of the others, the 5th having no vacant lots, the 8th very few.

The most extraordinary feature in these comparisons is the

per cent. amongst tradesmen and professional people, and 54 per cent. amongst the workingmen and domestics.” De Villiers states that “the mortality amongst the workingmen of Lyons is 35 per cent., and in well-to-do families and agricultural districts it is 10 per cent.” Dr. Jacobi found the mortality to be 59 per cent. at the Randall’s Island Foundling Hospital, and Dr. John S. Parry calculates the mortality of the children in the Philadelphia Hospital at 62.12 per cent.—*Dr. John S. Parry. Infant Mortality, etc. Philadelphia, 1871. P. 21-2 (out of Jacobi, of N. Y.).*

²The sexes are not given by wards; but I have taken the trouble to calculate it for 1 year, and find it was far above the average for the first ward, but the data in the other wards are not sufficiently complete to allow of any reliable calculations. It is interesting to know, however, that the proportion of boys was as high as 115.39 to the 100 girls in the report of a practitioner having cases principally among the lower and middle classes, while it was only 69.00 males to 100 females in the records of an accoucher whose practice was exclusively among the wealthiest class, a difference of 23.19 per cent. in the excess of males in favor of the former.

much higher rate of mortality, coupled with an apparent fecundity nearly three times as great, in the poorest ward as compared with the richest—and I have no doubt, if the facts could be reached, we should find the proportion of boys to girls quite 50 per cent. higher among the poorer class than among the wealthy.

In the comparison of the total number of conceptions by months in these wards, it is noticeable that the *geniale tempus* (April) seems to have had more effect on the wives of the wealthy than on those of the poorer class—and the *lenten* fasts appear to have been more generally observed among the rich than among the poor—if we may judge by the greater decline in conceptions among the former than among the latter in the month of March.

Table showing the percentage of men and women married at different ages, in Philadelphia, from 1861 to 1872.

Ages.	Under 20	20 to 25	25 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	Total mar- riages all ages.
Per centage of men.	.466	34.83	31.04	19.34	5.88	2.04	.538	.077	.044	
Per centage of women.	18.547	43.47	18.08	10.45		3.433				62,904
Average births to each marriage (annually)										
“ “ “ “ “ “	“	“	“	“	“	“	“	“	“	2.83
“ “ “ “ “ “	“	“	“	“	“	“	“	“	“	2.64
“ “ “ “ “ “	“	“	“	“	“	“	“	“	“	2.71
Decrease per cent. in last half of decade.....										6.71

NOTE.—According to Dr. Emerson, “Villot’s researches seem to show that the proportion of mortality is regulated less by the density of the population than by the opposite circumstances of ease and poverty.” The Registrar General of England (1841) says: “It has frequently been observed that marriages and births are most numerous where mortality is the highest; and this doctrine is borne out by the facts in a table where the mortality is raised 44 per cent. (Lancashire and Cheshire); the marriages and births were raised 21 per cent.”

Villermé suggests that the sterility of marriages in Paris, where there is no appreciable physical cause, is principally owing to the will of the inhabitants, and assures us that it is principally the rich quarters in which the fecundity is most restrained.—*Annales des Sci. Nat.* V. VIII., p. 426. The fact of a much smaller proportion of male births in rich as compared with poor quarters, points to actual physical decline in fecundity, and suggests a fallacy in the theory of this excellent French statistician.

Average inhabitants to each marriage (annually) ¹ first $\frac{1}{2}$ decade.....	103.7
“ “ “ “ “ “ last $\frac{1}{2}$ “	98.4
“ “ “ “ “ “ 1861 to 1872.....	101.0
Decrease per cent. in the number of inhabitants to each marriage.....	5.1

Average number of boys born to 100 girls, first 6 years (white), 1861-7..	110.71
Average number of boys born to 100 girls, last 5 years, (white).....	110.46
“ “ “ “ “ “ 11 “ 1861 to 1872....	110.65
Decrease per cent. in the proportion of boys in the last 5 years.....	.22

Average number of boys born to 100 girls, first $\frac{1}{2}$ decade, 1820-1831.....	108.86
“ “ “ “ “ “ last $\frac{1}{2}$ “ “ “	107.36
“ “ “ “ “ “ whole “	108.11
New York city, 1869, 1 to 108 inhabitants; 1870, 1 to 118 inhabitants.	

Table exhibiting the number, proportion and percentage of sexes in the population, births and deaths, from some hereditary diseases² and accidental causes, etc., occurring in the city of Philadelphia, from Jan. 1st, 1861, to Dec. 31st, 1871:

	Total No.	Percentage of whole No. dying.	Males to 100 Females.
Population of Philadelphia, 1870.....	674,022		89.50
Births for the 11 years 1861-72.....	182,627		110.65
Deaths “ “ “ “ all ages.....	174,000		113.44
“ “ “ “ “ still-births excluded	165,604		112.29
“ “ “ “ “ still-born.....	8,396	4.8	133.50
“ Of children under 20 years of age, from all causes.....	93,775	53.9	113.61
“ Adults (all above 20 years) from all causes.	76,142	43.7	103.20
“ From old age (from 60 to 110).....	4,362	2.5	53.42
“ “ Murder and violence, all ages.....	175	.1	446.20
“ “ Suicide.....	339	.19	438.09
“ “ Intemperance.....	405	.23	136.84
“ “ Wounds.....	36	.02	1700.00
“ “ Apoplexy.....	2,093	1.20	123.25
“ “ Gout.....	50	.028	284.61
“ “ Diseases, inflammation, and congestion of the heart, all ages.....	4,644	2.66	102.35
“ “ Diseases, inflammation, and congestion of the heart, under 20 years..	903	.51	136.36
“ “ Diseases, inflammation, and congestion of the heart, above 20 years..	3,741	2.15	95.55
“ “ Diseases, inflammation, and congestion of the brain, all ages.....	9,065	5.21	132.13
“ “ Diseases, inflammation, and congestion of the brain, under 20 years...	6,320	3.63	118.45

¹Decrease per cent. in proportion of boys in the last half decade 1.38.

²See further in author's paper "On the Laws of Transmission of Resemblance from Parents to their Children."—*New York Medical Record*, Aug. 15, Sept. 15, and Oct. 15, 1873.

	Total No.	Percentage of whole No. dying.	Males to 100 Females.
" " Diseases, inflammation, and congestion of the brain, above 20 years..	2,745	1.58	324.50
" " Scrofula, all ages.....	736	.42	120.36
" " " under 20 years.....	581	.33	122.59
" " " above " ".....	155	.09	112.33
" " Pulmonary consumption, all ages ² ...	22,242	12.78	99.15
" " " " " under 20 years....	3,087	1.78	77.31
" " " " " above ".....	19,155	11.00	103.30
" " Paralysis, all ages.....	2,207	1.26	122.92
" " Cancer ³ , all ages.....	2,339	1.34	43.05
" " Diseases peculiar to women, all ages	1,202	.69	
" " Whooping cough	1,182		73.11
" " Scarlet fever, (42 years ending 1871)	15,059		96.7
" " Measles, " " "	2,744		105.7

Age and percentage of decedents from consumption of the lungs, in Philadelphia, for the eleven years from January 1st, 1861, to December 31st, 1872 :

Average age of all decedents from consumption.... 35.57 years.
Average age of all decedents dying after the 20th year..... 39.41 "

²The following are the percentages of deaths from pulmonary consumption of total mortality for the years following : 1860—1871—13.13—13.54—12.99—12.37—12.31—14.80—14.80—14.30—14.11—14.49—13.84—11.82. The percentage of deaths from this cause seems to be gradually increasing, until the two last years, when there is an apparent decline ; but this is not real, as the total mortality was greatly increased in these years from Small-Pox and infantile diseases, hence the difference.—Mr. *Chambers' Report*, 1872, p. 38.

³In the author's paper on "Deaths from Cancer, occurring in Philadelphia, from Jan., 1861, to Dec. 30th, 1870, showing the relative proportion of males and females dying of this disease, and the percentage of women dying of cancer of the uterus" (*Journal of the Gynecological Society* Boston, Sept., 1872. pages 201—2—3—4; extracted in *N. Y. Medical Record*, Feb. 1st, 1873) he has shown that 232 per cent. more women than men die of cancer, and that of all the women dying of cancer, 28.66 per cent. die of cancer of the uterus, or 20.44 per cent. of the whole number of deaths from this disease without regard to sex ; of those, 39.2 per cent. die before the 45th year, and 60.8 per cent. after. Of all the women dying of cancer, without regard to seat, 65.7 per cent. die after 45 years of age.

In Providence, R. I., 15 years ending 1871, 37 males to 100 females died of cancer. In England, 1856, 4,069 females and 1,690 males, or 45.5 males to 100 females died of this disease.

Average age of all decedents from consumption dying after 30th yr., 46.77 years.						
"	"	"	"	"	"	40th yr., 51.73
"	"	"	"	"	"	50th yr., 58.51

The percentage dying at different ages was as follows:

Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.
1.73	1.06	1.34	.99	1.29	6.90	30.39
30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.
24.21	16.94	8.95	5.28	2.19	.34	.019

Statistics showing movement of population in Philadelphia:

Year.....	Population ¹	Births.....	Inhabitants to 1 Birth Annually	Deaths	Inhab. to 1 Death Annually.....	Marriages.....	Births to each Marriage Annually ²	Inhabitants to 1 Marriage Annually.....
1861	565,529	17,271	32.7	14,468	38.9	4,417	3.91	128
1870	674,022	17,194	39.2	16,139	41.73	6,421	2.67	105
Average, 1861-72..		16,602	37.3	14,870	39.1	6,120	2.71	101
" 1820-31..		6,467	22.64		41.15			
" 1806-20..					47.86			
Total births, 10 years, 1860-1871.....								164,281
" deaths, 10 years, " "								147,435
Gain in population by excess of births over deaths ⁶								16,846
Total decennial increase, 19.2 per cent., or.....								108,493
Population recruited from other places during the decade.....								91,647
Average yearly influx becoming permanent inhabitants.....								9,164
" monthly " " " "								764
" daily " " " " "								24.5
" " gain by excess of births over deaths, about.....								4.6
" " increase in the population, about.....								29
Average yearly increase by excess of births over deaths.....								1,684
" " " recruited from abroad.....								9,164
" " " from all sources.....								10,848

¹At a regular increase of 11,000 per annum, the population of Philadelphia will be in the June of the following years: 1873, 707,022; 1874, 718,022; 1875, 729,022; 1876, 740,022; 1880, 784,022, and it would not reach a million at this rate until about the year 1900. Circumstances connected with the rebellion, no doubt, checked the increase of population to a slight extent, yet this has probably been in a measure compensated by greater activity and increase since 1864. At furthest, we will not have above 750,000, or say 775,000, in 1876. Statisticians, who are not physicians, always estimate increase in the population far above what is ever realized. For example, a number of persons

Number of deaths by ages and sexes, compared for the decade from 1820 to 1831, with decade 1860 to 1871 (still-births deducted):

Deaths—Annual average.	Under One Year.	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	
1861 to 1872,	3500	1347	1387	703	296	484	1662	1443	
1820 to 1830,	855	325	267	146	71	114	456	457	
Multiply all last by 4 to bring the total no. deaths the same.	3420	1400	1068	584	284	456	1824	1828	
Deaths—Annual average.	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	Males to 100 Females.
1861 to 1872,	1191	945	896	736	363	78	10.2	.63	112.29
1820 to 1830,	375	246	193	135	74	21	3.2	.5	
Multiply all last by 4 to bring the total no. deaths the same.	1500	1056	772	540	296	84	12.8	2	
									Total all ages—still born excluded.
									15,061
									3,761
									15,061

have calculated a population of more than 100,000,000 for the United States in 1900, and this even so late as 1869! And Gen. Walker is only a little nearer the truth when he sets it at 76,000,000, which is double what it was in 1870. Can the population double in 30 years? Have we any such experience?

²Deduct 4.1 per cent. for illegitimate births, and we have 2.6 legitimate births to each marriage. Estimated annual average illegitimate births, 680, 188 of which occur in the almshouse. The above estimate of 4.1 per cent. is taken from Dr. John S. Parry's excellent paper on Infant Mortality in the Proceedings of Philadelphia Social Science Association, 1871; also in pamphlet, p. 8.

³New York city (1870) had one death to every 33.9 inhabitants. We are scarcely warranted in making any comparisons between New York and Philadelphia, for the reason that there is a larger proportion of the poorer classes in New York than in Philadelphia, for the reason that many of the well-to-do merchants and trades-people live in New Jersey, Brooklyn and other neighboring places not within the city limits, while our suburban residences are principally comprehended in the city limits.

The yearly deaths in San Francisco are 17 to 1,000 inhabitants; St. Louis, 20; Cincinnati, 20; Baltimore, 25; *Philadelphia*, 26; Chicago 27; Brooklyn, 28; Boston, 30; New Orleans, 30; Newark, 31; New York, 32; Savannah 36; Montreal, 37; Memphis, 46; Valparaiso (Chili), 66. Abroad—Zurich, 13; Geneva, 19; Basle, 20; London, 21; Paris, 21; Liverpool, 27; Leeds, 27; Glasgow, 28; Dublin, 29; Leghorn, 30; Venice, 30; Milan, 30; Vienna, 31; Stockholm, 31; Nice, 31; Havre, 31; Rotterdam, 31; Berlin, 32; Bologna, 32; Naples, 35; Florence, 35; Rome, 36; Prague, 41; Munich, 41; Cadiz, 44.

⁴Emerson's Med. Statist. of Phila., Amer. Jour. Med. Sci., 1831, p. 40.

⁵Whites (38.3 to 49.1), av., 42.3; blacks (16.9 to 27.2), av., 21.7. Blacks in year 1827—males, 1 in 14; females, 1 in 22, or with an excess of 32 per cent. of females in population, had an excess of 13 per cent. of male deaths, exclusive of still-born. Total population, U. S. 1860, 1 death to 79.77 inhabitants; 1870, 1 in 78.32.

⁶The births reported in New York city have never exceeded the deaths as recorded.—*Report of Board of Health*, 1870, p. 293.

In the State of Michigan 1870, the average age at death was 23.50 years; males, 1.16 years in excess of females. In the State of Rhode Island, 1860, the average age at death was 29.64 years; males, 28.51; females, 30.70 years; from 1863 to 1872 for both sexes, it was 31.85. Among the colored population in Providence, it was 22.26 for males, 32 for females, and in the whole State, 23.13 for males, 36.85 for females.

In Geneva, where a greater longevity (average age at death) prevails than any other place in Europe, the births only slightly exceed the deaths.

Before commenting on the results of these computations it is proper to observe that a large number of births are not recorded, this deficit being estimated from one to two thousand annually, or more properly, about 12 or 15 per cent.

In examining the proportion of boys to girls born during the decade stated, it is noticeable that this proportion was lowest in 1862, when many men between the ages of 18 and 45 years were in the army, leaving wives temporarily without husbands, of the ages and classes from which above the average proportion of boys are usually recruited; and this explanation is corroborated by the fact of a gradually increasing proportion of boys in each succeeding year, until 1865, when it reached its highest point—the army being disbanded in 1864. From this period we have a gradually declining proportion of males for the next three years, owing perhaps to the larger number of marriages (from money being plentiful), and for this reason giving a larger proportion of first children, among which the proportion of boys is less than in the closely succeeding pregnancies. In the next three years, money being less plentiful, marriages decreased, and the proportion of male births increased.

For the entire period of eleven years, the proportion of boys to girls born to white parents was as 110.65 to 100, while among the colored population only 101.14 males were born to 100 females. The proportion of boys born in the city of Philadelphia, in the period comprehended in these calculations, is much larger than that of any other city or entire State from which I have been able to get returns, New York city having (1853 to 1871) only 107.8, notwithstanding her much larger foreign population, amounting to nearly 100 per cent. more than Philadelphia.

Cities as a rule (deduced from statistics in Europe), have a smaller proportion of boys than villages and the neighboring country, and I imagine Pennsylvania would show a larger proportion of males in her births than her largest city—but this law of nature does not always hold in the United States, because of excess of foreign element in cities over country districts, and other circumstances connected with movement of population westward.

As an example of this exception, I may cite Providence, R. I., which had (1854 to 1872) from 95.2 to 113.8, or an average of 105.9 boys to 100 girls, while the entire State, in the same period, had from 100.3 to 112.9, or an average of 105.5 boys to 100 girls.

The proportion of boys to girls in the conceptions by seasons follows the usual law, being sensibly greater in spring, particularly the month of April, corresponding with the largest number of conceptions. The greater number of marriages in the autumn and winter increases the proportion of conceptions in these seasons, but with from 137 to 233 marriages in excess of the number in the spring, the last named season has within two as large a number of conceptions.

The proportion of males, in the general population of the city, had sensibly diminished during the period comprehended between 1830 and 1860, it having decreased .61 per cent. From 1860 to 1872, 113.44 males¹ died to every 100 females, while only 110.5 boys were born to 100 girls. The proportion of males to females, in the population in 1860, was 90.93 to 100, and had the influx from neighboring places been in the same proportion, by virtue of the excess of male deaths over male births, there would have been 90.37 males² to 100 females in the population of 1872; and if the city had relied wholly upon its resident population for its increase, the proportion of females would have been still greater.

I have seen statistical tables which seemed to indicate that females decrease their mean average duration of life more than males, by taking up their residence in the country, while men decrease their years more than women by a residence in cities.³ Thus, in Michigan, in 1870, the males, at death, were 1.16 years older than the females, while in Rhode Island and in the city of Philadelphia, the females were more than two years older than the males at the time of death; and for the same places the colored female decedents were from ten to above thirteen years older than the males. This excessive mortality among the male blacks over

¹ From the author's paper on the "Relative Viability of the Sexes," etc., *N. Y. Medical Record*, June 15 and July 15, 1873.

² This estimate was made before the census report was published, and is singularly in harmony with the latter, as the proportion of males to females in 1870 was 90.50 to 100 (census).

³ This point was maintained and proved in the author's paper on "Relative Viability," etc., etc., above referred to.

females, when coupled with the larger proportion of females in the births, fully accounts for the great excess of colored females in the population, and is at variance with the opinion of Dr. Emerson, who suggested, as a cause of this excess, the greater demand for female servants.

I stated, in my preliminary remarks, that advances in civilization bring with them, among other things, a decline in the proportion of boys in the births; and in looking at the proportion (108.11), in the period from 1820 to 1831, and comparing it with the proportion (110.65), for the decade from 1860 to 1871, it would appear as if Philadelphia had retrograded instead of having advanced; but we must look to the increased proportion of foreigners giving birth during the latter period in explanation of this fact. When each decade is halved, we find the rule holds, as it does throughout Europe. In the decade from 1820 to 1831 there was a decline in the last five years over the first five of 1.38 per cent., and in the second part of the decade, from 1860 to 1871, the decline was .22 per cent., and would undoubtedly have been greater had it not been for the influence of circumstances connected with the rebellion.

It is a law, that the greater the fecundity the greater the proportion of male births; but this rule is subject to exceptions, from changed circumstances, altered physical conditions of the parents, the proportion of foreigners among parents, and the proportion of races in the population of the city, from which statistics are elaborated. We have seen that the colored population of Philadelphia gave only 101.14 males to 100 females, while the whites gave 110.65; and if we could have separated the Jewish births, I have no doubt we should have found the proportion from 125 to 150 boys to 100 girls, if not even more, as we know in every instance in which comparisons have been made between Israelites and Christians, the Hebrew males were from 114 to 144 to the 100 females, while the Christians were always less than 109, usually less than 106 in countries having a fixed population.

From 1860 to 1872 there were on an average 71.7 Jewish marriages annually, and if a larger proportion of Hebrews do not marry than other religionists in the city, the population of the city must comprehend $(71.7 \times 101) = 7,241$ Hebrews; but if they marry less frequently, or have a larger number of persons in the

population to each marriage, (as was shown in an article¹ by the writer devoted to the biostatic peculiarities of this race), there are certainly more than I have estimated above, probably (71.7x130), or from nine to ten thousand; hence there is one Israelite to every eighty inhabitants. From 1861 to 1873 (12 years), there were in each year respectively, 32, 64, 70, 82, 77, 126, 67, 59, 69, 66, 76, 83 Hebrew marriages, or an average of 75 for the first six years and 70 for the last six years. The effect of the rebellion (which began in 1861 and ended in 1865) is singularly noticeable in its influence on the proportion of marriages, as there were but thirty-two in the year (1861) in which the war began, owing to the depression of business, and nearly four times (126) as many in 1866 (the year following the close), owing to the fortunes made during the conflict.

This is corroborative of the opinion expressed by the writer in his article on "The Biostatic Peculiarities of the Jewish Race," viz.: That they were more careful to make provisions for the event than Christians.

The influence of the accession of a larger percentage of the foreign element in the population, in altering the proportion of males in the births, is evident from the examination of the following statements, which I have elaborated from the Registration Report of Michigan for 1870, viz.: That while foreign fathers have only 104.18 boys to 100 girls, foreign mothers have 111.17 to 100; and where both parents are native, they have 107.77 boys to 100 girls, while if both are foreign, they have 109.31 to 100. This same rule obtains to a still greater degree in case of twins and illegitimate births, while it is reversed in case of still-births.¹ Fuller particulars and cause of this peculiarity will receive attention in a special article.² This report, so skilfully compiled by Dr. B. H. Baker, is the only one I have yet seen in which the nativity of the parents and sex of the offspring were both stated in such a manner as to admit of the calculations above given.

The increase in the proportion of parents giving birth in the

¹"Longevity and other Biostatic Peculiarities of the Jewish Race," *New York Medical Record*, May, 15, 1873, pp. 241-2-3-4; copied in the *Cincinnati Lancet and Observer* July, 1873, pp. 417-429; also *Hebrew Leader*, N Y., May 23-30, June 6-13, 1873.

²The effect of Nationality of Parents on Fecundity and the Proportion of Sexes in Births.

city, who were themselves born in other towns, or in the country, is not without influence in increasing the proportion of male births.

With these facts before us, then, it is not difficult to understand why we had a larger proportion of boys born in the last decade, than in the decade forty years before.

INFANT MORTALITY.

Of all the persons dying in Philadelphia for the twelve years ending December 31st, 1872, 28.5 per cent. were one year and under,¹ 8.5 per cent. from one to two years, and 8.3 per cent. from two to five years of age; or 45.3 per cent. were under five years of age. From 1807 to 1827 (20 years), 39.8 per cent. of the total mortality was from children under five years of age. From 1858 to 1870, it was 45.54 per cent.

There does not appear to be any decline in infant mortality in this country, but rather an increase, while Dr. Farr reports a decline of one-half in the last hundred years—from 74.5 per cent. (1730-1749), to 29.8 per cent. (1851-1870).

To every 10,000 deaths of males under one year of age, in England, France, Belgium, Prussia, Sweeden and Saxony, only 8,060 deaths of females occurred, or 124 males to every 100 females. This fact is rendered still more striking when we state that the proportion of males to females in births, in those countries, does not exceed 107 males to 100 females, while the proportion of sexes in the population under one year is necessarily much less than this last even.²

¹ The comparison of the mortality of children under five years in other cities and States is as follows:

New York, 1804 to 1853, 48.79 per cent. 1866 to 1870, 50.45 per cent. Chicago, 1843-1869, 51.24 per cent.; Boston, 1811-1839, 37.87 per cent. 1868-1872, 42.22 per cent.; Providence, 1856-1870, 38.45 per cent.; 1839-1870, 39.78 per cent.; St. Louis, 1871, 51.10 per cent.; Baltimore, 1850, 1860, 1862, 1865, 1866 and 1869, 45.54 per cent.; Cincinnati, 1868, 46.68 per cent.; Washington, 1849, 1852, and 1868, 46.54 per cent.; United States (census), 1850, 38.40 per cent.; 1860, 42.89 per cent.; 1870, 41.28 per cent.—*Dr. Toner, Free Sanitariums, Washington, 1873. Pp. 72-5; also Fact of Vital Statistics, etc., 1872.*

²Dr. Tripe, "On the Relative Mortality of Males and Females under five years of age. *Br. and For. Med Chir. Review*, Apr. 1857, p. 455-70.

ILLEGITIMACY.

The estimated number of illegitimate births appears to be low, but the percentage¹ (4.1) is as high as that given by Mr. Acton for London. The proportion of the sexes in these births is only known in the reports from the almshouse, where it follows the nearly *universal* rule in having a smaller proportion of males than legitimate births, as may be seen in the foot note.

The larger proportion of females in such births has been so frequently recorded as to be a fixed fact, while the discussion in regard to the cause is still an open question, though the weight of opinion is in favor of the youth of the mother, large proportion of first pregnancies,² and the presence of a condition incident to a certain physiological phenomenon.

The proportion of illegitimate births to the births in general is thought by those who have given the subject much attention to be due to the greater or less excess of women in the population. The law being, the greater the excess of women over men in the population, the greater the proportion of illegitimate births.

INFANTICIDE.

Dr. John S. Parry, from a careful examination of the records in the office of the coroner, finds that the "deaths of infants under one week old in which inquests were held," during the periods from November 1st, 1863, to October 31st, 1866, and from November 1st, 1869, to March 31st, 1870, numbered 372 (241 males, and 131 females, in proportion of 181 males to 100 females). Nearly 100 of these are thought to be cases of infanticide.—*Op. Cit. pp.* 10, 11, 12, 13.

MULTIPLE BIRTHS.

We have no record of the proportion of sexes in multiple births, but I feel warranted, from my researches in this direction, in enunciating a law which seems to hold in all the cases to which I have applied it, viz. : the greater the number of products at a single labor, the smaller the proportion of males, when compared with

¹The following percentages may be compared with Philadelphia, viz. : London, 4.1; Italy, 5.1; Spain, 5.5; England, 5.9; France, 7; Prussia, 7.5; Scotland, 9.5; Edinburgh, 10.1; Austria, 10.9; Bavaria, 22.5; Paris, 28.1; Vienna, 51.5.

² See further in author's paper on the "Physical Aspects of Primogeniture," *New York Medical Record*, Nov. 15, 1873.

births occurring under similar circumstances, and in the same locality.

STILL-BIRTHS.

The proportion of boys to girls in still births was only 134.4, which is lower than the proportion for the State of Rhode Island for the past 19 years, where it was 148.9 to 100, while in Massachusetts, from 1852 to 1869, the proportion was 146.6, and in Michigan, 1869, it was 145.8, and in 1870, 162.5. The larger proportion of males in still-births in States over cities, as would appear from these figures, is probably due to less skillful accouchers or difficulty in reaching the case at the proper time, and possibly from larger size of child's head in the country than in the city. The greatly increased proportion of still-births in the almshouse over the city in general may be due to the fact that a larger percentage of them are first children, or from the enfeebled or diseased condition of the mothers.

The greater proportion of males in still-births is due in a measure to the more frequent defective development of males than of females, as I have shown in my paper on the "Relative Viability of the Sexes, etc." This view is corroborated by the excessive mortality of males in the first years of life, even to the tenth. Reasoning from this stand-point, I cannot help stating my conviction in regard to the cause of a larger proportion of males (146.6) in still-births in the State of Massachusetts for the eighteen years mentioned, as being due to defective development, which I believe is clearly chargeable to the incapacity of the mothers. Wherever the proportion of males is high in still-births among parents of the *same nationality*, who are treated by equally skillful accoucheurs, I am persuaded it is usually a reflection on the mothers. Massachusetts, with 146.6 males to 100 females still-born, had but 105.8 males to 100 females in general births, while Philadelphia, with 110.65 males to 100 females in births in general, had but 134.4 males to 100 females still-born. Consequently Massachusetts mothers do not compare favorably in this particular with Philadelphia mothers. I have pointed out in another place¹ that when the parents are of different nationalities the proportion of still-born males was increased to 200 males to 100 females, when

¹"Effect of Nationality of Parents on Fecundity and Proportion of Sexes in Births."

the father was foreign and mother native, while it was but 150 males to 100 females in native father and foreign mother. Both parents foreign, 320 males to 100 females; both parents native 127 males to 100 females.

Notwithstanding an increase in the proportion of marriages to the population (owing to excess of money at the disbanding of the army, and subsequently), during the last half decade, the proportion of births to each marriage was diminished 6.71 per cent. from the first half.

In 1861 there were 3.91 births to each marriage annually, while in 1870 there were only 2.67, or an average of 2.61 for the entire decade. In the decade from 1820 to 1831, it required but 22.6 inhabitants to recruit one birth each year, while in the decade from 1860 to 1871, it required 37.3, or 39.4 per cent. more.

The most important of all the deductions from these figures is the mean average duration of human life, which it will be seen has gradually diminished for each period; and all these are above the actual duration of life, from the fact that the greater part of those 9,000 persons who annually take up their residence in the city are adults, and have passed the most critical period of their lives elsewhere.

The decline in the duration of human life in this city since 1807 is further corroborated by the calculations showing that one person died annually to every 47.86 of the population, in period from 1807 to 1820, while in the next period (1820-1830) there were only 41.1 inhabitants to each decedent, and this number is further reduced to 39.1¹ in the period from 1860 to 1871, being 18.3 per cent. less than in the period from 1807 to 1820.

From the fact that the number of males in the population to each male dying was 33.5, while the number of females in the population to each female dying was 39.4, we are convinced that females have a higher mean average duration of life than males, as was the case in Rhode Island, as was indicated in the foot-notes, and as proved in the author's article² already referred to.

¹New York city, in 1870, had but 33.9 inhabitants to each death, which indicates that the duration of life in that city is shorter than in this.

²The "Relative Viability of the Sexes, particularly with regard to the relative liability to the inheritance of certain transmissible diseases—considered in relation to the selection of Life Insurance Risks, with a view of exhibiting the the unjustness of charging higher rates for women, etc, etc."—*N. Y. Medical Record*, June 16 and July 15, 1873. Pp. 297-302 and 353-4-5.

The deaths have been all recorded, while many of the births escape the attention of the registrar,³ and yet, notwithstanding this last-named fact, the latter have been in excess of the former every year except one, and that deficit was probably due to some circumstance connected with the rebellion, then just ended.

In the year 1872, however, the deaths exceeded the births (as recorded) by 472, owing to the epidemic of small-pox and excessive infant mortality during the hot summer of that year.

The decline in the increase of the population by births, from 38.9 per cent., in the decade from 1820 to 1831, to 10.8 per cent., in decade from 1860 to 1871, and the total decline from all causes, from 37.8 per cent. in the former period, to 19.2 per cent. in the latter period, is a noticeable feature in the movement of population in our city, and corroborates the statement made in my preliminary remarks, viz.: *population increases in a decreasing ratio.*

JOHN STOCKTON-HOUGH, M. D.

HYMN TO APHRODITÉ—SAPPHO.

Bright Aphrodité, child of Jove,
 In glorious radiance throned above,
 Thou, skilled in every playful snare,
 Oh goddess, hear my earnest prayer
 And send relief.

Oh, come thyself, if ever thou
 Hast kindly heard my offered vow;
 Leaving thy Father's home of light,
 Drawn to the earth by wanton flight
 Of swift-winged steeds—

Thy graceful sparrows—eddy round
 In middle air, they touched the ground

³The deficiency in the return of births is estimated at 20 per cent. by Mr. George E. Chambers, Registrar (Report for 1872, p. 3), which is probably quite enough, for this would give us one birth to every 27 inhabitants, while at present reckoning we have only 1 in 37. From 12 to 15 per cent. would probably be nearer correct.

Almost ere their flight had started
From realms of bliss, and gaily darted
To this dark sphere.

And then, thy face enwreathed in smiles,
Thy glorious form with lovely wiles,
Benignly asked what meant my prayer,
And what the soul-destroying care
Of which I cried to thee ;

And what my phrenzied heart desired
To still its yearnings ; who had fired
My ardent longings ; what the guile
By which I sought to win his smile
And soothe mine agony.

“ Take courage Sappho ; for if e'er
His coldness has disdained thy prayer ;
If yet he flies thy warm caress,
And shuns—how foolishly—the kiss
Of burning lips ;—

Yet fly despair ; for never yet
Hath youth been safe from woman's net ;
Soon shall thy snowy arms inclose
Thy prize,—nor can he still oppose
Thy charms once spurned.”

Were these thy words ? Oh, ever kind,
Come, come thyself, to calm my mind,
Grant me, loved goddess, now to blind
The youth I love, and ever find
Thy succour sure.

J. ANDREWS HARRIS.

THE CONQUEST OF SPAIN BY THE ARAB-MOORS.—XIII.

 THE KHALIFATE OF CORDOVA, ABDU-R-RAHMAN I.

ABDU-R-RAHMAN the prince of the house of Ummeyah, so long the sport of malicious fortune, was left in our last paper at Tahart with the hospitable tribe of the Zenetes, awaiting with anxiety the next turn of the capricious wheel of fortune.

Had there been equitable and orderly government in the Spanish peninsula, he might have waited in vain for the fulfillment of his hopes, but there was anarchy in the place of order. The dynasties of the Ommyades and Abbassides were opposed to each other, and apart from this, the various *tribes* were fighting for supremacy. Yusuf held nominal sway, but the conspirators against his power had made a strong vantage ground in the north and east, limiting his real government to Toledo and all Andalusia. Never was a realm in greater need of a conqueror.

It was this condition of things which worked to the advantage of Abdu-r-rahman, and of which he was determined to avail himself. If he could not obtain his rights in the east, he might do more in the west.

Some historians have asserted¹ that the Arabs in Spain heard of his existence and place of residence, and without any knowledge on his part, concerted to place him on the throne. This is not true. The first effort was made by himself.

From Tahart he crossed the great range of the Atlas, and took up his quarters near the sea. Thence he dispatched his freedman and chief officer, Bedr, across the Mediterranean, to pave the way for himself.² Knowing that the former khalif, Meruan, had still a great number of adherents in Spain, chief of whom was Abú Othman Obeydullah, he gave Bedr letters, and put him in communication with the Ommyades and those disaffected to the government of Yusuf.³

¹ From the account of Condé, the reader is led to think that all that Abdu-r-rahman hoped for was protection and safety. That of Al Makkari displays his long-cherished purpose to assert himself as the heir of the Ommyades.

² *Al Mak.* II. 62.

³ Upon the death of Meruan, Yusuf had at once acknowledged the authority of As-seffah, while most of the provincial governors considered him a usurper and still held out for the former house.

The claims and purposes of Abdu-r-ráhmán were clearly set forth by Bedr. As the only surviving heir of the Khalif Hisham, he had a right to the supreme khalifate, and, of course, to Spain as a part of it; what he wanted was a strong party to surround him as soon as he should land. He was sure, he said, of success, and would reward with high honors and emoluments those who should help him to what was his by right. The more readily to accomplish this purpose he bade them to foster the strife of the tribes, in order to keep them from rallying around Yusuf, and to sound all the leaders with secrecy and discretion.

It happened that, just before the arrival of Bedr in Spain, Abú Othman had received orders from Yusuf to repair with an army to Saragossa, where As-samil had been besieged for some time by a rebellious chieftain. While marching in obedience to this order, he received the secret message of Abdu-r-ráhmán which he at once confided to his son-in-law, Abdullah Ibn Kháled.

He relieved As-samil from the siege, and made him also a confidant in the matter, but that general, with a prudence dictated by self-interest, determined to await the course of events before deciding with which party he would join.¹ Yusuf was in possession, and Abdu-r-ráhmán was an adventurer. The party in favor of the coming prince, however, steadily increased in numbers, and taking advantage of the absence of Yusuf, who was then in Aragon, as many as eighty of the older Moslems of rank, men with flowing white beards, who had as by a miracle escaped death in so many civil wars,² met together in council to deliberate on the condition of affairs, and to elect a new chief. The convention was at Cordova, and in the absence of Yusuf they lost no time in debate.

It was manifest, said their chief speakers, that something must be speedily done. The disorders, before great, had been fed and expanded by the usurpation of the Abbasides; the Spanish Arabs, caring little for the rivalries of Damascus, were strongly loyal to the traditions of the house of Ummeyyah, which had sent them to conquer Andalus.

¹ *Al Mak.* II. 64.

² "Congregaron hasta ochenta venerables musulmanes con sus largas y blancas barbas, como por milagro escapados de la muerte en tantas guerras civiles.—*La Fuente* III. 95--6.

Besides, the distance between Spain and Syria was so great that the justest khalif that ever sat upon a throne—even Abu Bedr or Omar, could not rightly know them; the accounts which reached him were distorted or colored. It took too long to learn the truth, and far too long for prompt and righteous action.

Therefore, they said, let us take the matter into our own hands. Let us not expect anything more from Syria, and let us not consider as data of the problem the factions now warring against each other in Spain. We want a new government, a new departure, a new man.

“Even so,” said Temám Ibn ‘Alkanah; “Spain is in itself spacious, populous and rich enough to be an independent kingdom, and under a good monarch of her own would be one of the finest and happiest countries in the world.”¹

Then Ayub of Emesa took up the word and said: “I propose the establishment of an independent khalifate, to get rid at once of the sovereignty of Damascus, and to put an end to the intrigues of the contending chieftains.

At this conjuncture the preparations of Bedr, came into play. To the question, “where could they find a proper prince to rule them?” Wahib Ibnu-l-Asfar arose and said: “I know a youth of Mohammed’s lineage; the grandson of a khalif of renown; he is now a persecuted wanderer in Africa; a price is set on his head by the dynasty of the Abbasides. In his poverty and exile he has won the affection and applause of the Barbarians, and has learned lessons of wisdom and moderation from hardship and suffering. I speak of Abdu-r-ráhman Ibn Mu’awiyah.”

Thus public expression was given to what were the sentiments of large numbers already; the proposal was adopted with acclamations. A deputation was at once appointed to repair to Africa, to seek out the exiled prince, and in the name of the Spanish elders and chiefs to offer him the throne of Spain, in entire independence of the khalifs, and in subversion of the claims of the incumbent ameer and all his provincial governors. The signet ring of the exiled prince which had been brought over by Bedr was used by the conspirators to seal letters and proclamations until he should come.² The deputation started at once, but secrétly,

¹ *Conde., Book I. C. ii.*

² *Al. Mak., II. 65.*

upon its delicate mission, and landed near Maghilah, near the sea. Yusuf was in profound ignorance of their proceedings.

In the meantime Abdu-r-ráhma, impatient for news, had crossed the Atlas range, and encamped with his few attendants on the sea-coast of Algeria, where he watched the white sails which approached the shore. At last a swift fellucca was seen in the distance; it grounded upon the beach near Maghilah; the passengers came out, and, approaching him with the humility of subjects, disclosed their errand, assured him of the fidelity of the principal Moslemah, told him of the weakness of Yusuf, and promised that he should find, on his landing, a powerful army commanded by practiced generals, and a throne which awaited him, with scarcely a struggle to secure it.

Abdu-r-ráhma, although expectant of such a summons, seemed overpowered when it came, and for a brief space could find no word with which to reply. At length he spoke: "What is thy name," said he to the chief of the deputation. "*Temám*" was the answer. "And what thy surname?" "*Abu Ghalib* (the father of the victorious)." "God is great," he replied, "may His name be exalted! for if that be the case, we shall, through the power and interposition of the Almighty, conquer that land of yours, and reign over it."¹

With these words, he began to make his brief preparations to embark, when a new obstacle presented itself in the shape of a troop of Berbers, who made demonstrations to oppose his departure. Scattering among them some dinars which the embassy had brought, they seemed satisfied, and he got on board the vessel; but just as it was about to quit the shore, other rapacious inhabitants, who wished a share, waded out and clung to the camel's hair cable. Instead of dinars they received blows from the crew, and one of them, more tenacious than the rest, lost his hand at one blow from Shaker's sword.

Then, a favorable wind springing up, they set sail, and sped to the opposite shore—the shore of a new empire.

A rapid passage across brought them to the beach of Almunecar² near Malaga, where he found Abu Othman and his son-in-

¹*Al. Mak. II. 65.*

²De las costas de Argel (Algeria) alas playgas de Almunecar.—*La Fuente III. 98.*

law, Ibn Khaled, who took him at once to Torrox, a few miles to the east, and near the sea-shore. He was in Andalus; for good or evil?

The attempt was, to all appearance, a desperate one; he might hope that the embassy were right in judging of the chances of success, but he could not shake off a fear lest their wish had been father to the thought. Every hour dispelled his fears and restored his confidence; men flocked with enthusiasm to his standard; the adjacent towns sent loyal embassies and opened their gates. The tribes of Syria and Egypt collected under their patriarchal banners, and came to meet him. Following the vessel in which he had crossed, a thousand warriors of the friendly Zenetes traversed the narrow sea to swell his numbers. All who came were charmed with his presence. He was the beau-ideal of a prince; his slender and yet manly form, his gracious air, his sweet smile, all contributed to the general satisfaction. The luster of the Omnyan line was not extinct.

With the troops now gathered around him he began his march. Crossing the range of the Alpujarras he proceeded to Elvira, and along the road he found new adherents; his march was a continued ovation. He began the work of organization at Elvira.

From Elvira, with ever-increasing numbers, he went to Seville, which opened its gates amid the wild shouts: "God save Abdu-r-ráhman Ibn Mu'awjah!"¹

I anticipated at the close of the last chapter the effect of his landing upon the Ameer Yusuf el Fehri, who, for nine years, had ruled, and ruled wisely, in Spain. He was by no means disposed to abandon his authority without a struggle, and his loyal and skillful sons seconded his efforts to maintain it with great constancy and energy. For years the chief troubles of the new prince were found in the resistance of Yusuf and his sons. One of them, who was in command at Cordova, at once placed the city in condition of defense; while As-samil, also determined to test the mettle of the new aspirant, collected hastily large contingents from the tribes settled in Merida, Toledo, Valencia and Murcia.

Abdu r-ráhman marched toward Cordova by the right bank of the river, and the son of Yusuf, with commendable boldness,

¹ *Al. Mak. II.* 67. Dios ensalce à Abdu-r-ráhman Ibn Mu'awjah 'era e grito que resonaba por todas partes.—*La Fuente, III.* 98.

came out of that city with all his available forces, to accept the inevitable battle in the plains of Musarah. The genius of the new conquest was triumphant; the sallying force was beaten and driven back in disorder to take shelter in Cordova.¹

Abdu-r-ráhmán followed them, and leaving ten thousand infantry to keep the insurgents in a state of siege, he marched with the rest of his army against As-samil. With irresistible impetuosity he routed the veterans of the Spanish Arabs, and for the time the rebellion seemed completely broken up. Yusuf fled to Lusitania, and As-samil to Murcia. Their force in Cordova escaped, and Abdu-r-ráhmán entered this capital as the seat of his empire, showing great generosity to the captured.²

But as yet there was no time for repose and municipal reorganization. The rebellious armies scattered, it was still necessary to enter and garrison the principal cities. Thus he marched to Merida, which opened its gates; but while there, the news came that Yusuf had returned and had overpowered the garrison of Cordova.

From Merida, without an hour's delay, the conqueror marched back, and storming Cordova, drove Yusuf in haste toward Elvira; again upon his heels, following by forced marches, Abdu-r-ráhmán overtook him at Almuñecar on the coast—the spot of his landing, and threw him again in confusion upon Elvira.³

The time had now come when As-samil thought the experiment fairly completed; he had determined to support Yusuf as long as there was a chance of routing the invaders; when that chance was gone, he would accept the situation and submit. Not a year had elapsed since the landing, and the power of the new ameer had grown to such proportions, that it could receive no permanent check. As-samil capitulated, and received the most generous terms—retirement with a large estate, and entire oblivion of the

¹ There had been a famine for six consecutive years in Andalus; and the people had become so debilitated for want of food that it doubtless aided the invaders.—*Al. Mak. II.* 69.

² *Al. Mak. II.* 72

³ It must be stated that there is great confusion in the accounts of these events. Condé and Al. Makkari differ greatly. I have made La Fuente the basis of this brief sketch; his patient and honest study of the chronicles is so manifest, that he may be relied on.

past. But he was too deeply involved not to appear again among the insurgents.

It is not my purpose to enter into the details of Abdu-r-ráhman's eventful life and administration. Besides making a paper of disproportioned length, the story is a chronicle of internal disorders; of rebellions defeated, renewed, defeated again, and again renewed, and could not interest the reader.

It was in the year 757 that he could turn from the principal seats of disorder to the establishment of his court at Cordova, and begin his system of government. That famous city he chose as his capital. It contained some relics of Roman art; the stately buildings of the Gothic monarchs had not yet disappeared; the *Balatt Ludheric* suggested their luxurious living, and the new ameer, still sensitive to the memories of a happy youth in Syria, before his proscription and exile, determined to make it, in oriental splendor, in its mosques and its palaces, not only the equal, but the rival, of Damascus.

It is significant of his feelings that he planted with his own hand a Syrian palm tree—at that time the only one in the peninsula—and as he watched its growth with melancholy interest, his sentiments found expression in a short poem, which, as it has come down in almost every chronicle, may really have been the effusion of this prince, warrior and poet:

"Thou also, fair and graceful palm tree, thou
Art here a stranger. Western breezes wave
Softly around thee with the breath of love,
Caressing thy soft beauty; rich the soil
Wherein thy roots are prospering, and thy head
Thou liftest high to Heaven. Thou, fair tree,
Dost feel no grief for thine abandoned home.
To me alone that pain, to me alone
The tears of long regret for thy fair mates
Green on Euphrates wave.
* * * * *
Thou palm, thou fair and lovely, of that home,
Dost take no thought! Ah well is thee! but I,
Sad mourner, cannot choose but grieve; and thus,
I weep for thee and me, oh lovely palm!
Thinking of our lost home."¹

¹ *Conde I, Part II. C. ix.*

Feeling that the only substitute for the lost home was in a magnificent new one, he projected on a grand scale the *mezquita* or great mosque; but like Solomon, he left its completion to his favorite son Hisham. He built a palace and surrounded it by a new city just without the bounds of Cordova, which were to become a scene of enchantment in the subsequent reigns.

From every part of the Mohammedan empire he invited the proscribed adherents of the Ommyades, to comfort and position in Spain. They came flocking from their concealments in Syria, Africa and Egypt, and circling around his throne, gave strength and coherence to his government.

To the ambassadors who had gone to Africa to invite him over, he gave the most distinguished appointments in his confidence and near his person. And he greatly needed such adherents at this juncture.

Again Yusuf, breaking his promises, rebelled and proclaimed himself anew the only ameer of Spain, with the authority of the family at Damascus; and again Abdu-r-ráhmán made preparations to destroy him. Among the adherents of Abdur-r-ráhmán, was a chieftain called Abdu-l-malek Ibn Omar—first named in the Latin chronicles as *Omaris filius*, and contracted—or corrupted—into Marsilius, or Marsilio.² To this general he confided the final settlement of Yusuf. Marsilio encountered the persistent rebel at Lorca, and defeated him after a desperate fight, slew him, and sent his head to Abdu-r-ráhmán. This was in the year 759.

As-samil, Yusuf's long-time confederate, gave up the case now as hopeless—sent in the submission of his eastern province, and went into voluntary retirement. His former complicity, however caused him to be suspected still, and he was cast into prison, where he died in 761; Al Makkari says he was poisoned by order of Abdu-r-ráhmán.

The sons of Yusuf, after still attempting to rouse central and eastern Spain, were at last crushed, and the elder beheaded.

Even in this rapid summary of events, I must not pass over without a mention of the relation of Abdu-r-ráhmán to the eastern

¹ *Al Mak.* II. 75.

² Contraccion sin duda de *Omaris filius* como llamarían los christianos a Ben Omar y despues por corrupcion Marsilius y Marsilio.—*La Fuente* III, 104,

khalifate, with the accession of the Abbasides. The seat of empire had been changed from Damascus to Bagdad, and the present khalif, Almansur, who was making his new capital the magnificent metropolis of the moslem world, could ill brook the pretensions and splendors of a hated rival in the west. He sent orders to the wali of Kairwan to fit out a powerful fleet, and with a large force to land on the coast of Andalusia, to ravage the country, to summon the inhabitants to their former allegiance, to declare that there was but one khalif, who reigned supreme on the earth, and, in a word, to re-conquer Spain.

Ali Ibn Mugeyeth, the wali of Kairwan, performed his bidding, and for a brief space it seemed as if the greatest, the most portentous peril had come upon the new khalifate. The wali and his invaders had joined the disaffected, and they were encamped in the plains lying between Seville and Badajos, on the borders of Estremadura. There, with his accustomed impetuosity, Abdu-r-ráhmaan attacked them and utterly routed them. He slew seven thousand, and among them the wali himself.

In the hands of swift and secret agents he placed the head and some of the members of Almansur's envoy. They bore them to his capital of Kairwan, without the knowledge of any one in Mauritania, and in the night nailed them to a column in the most public spot, with this inscription :

“In this manner does Abdu-r-ráhmaan, the son of Mu'awjyah, the son of Omeya, chastise rash men like Ali Ibn Mugeyeth, wail of Kairwan !”¹ The khalif is reported to have exclaimed, when he heard of the deed—“This man is *Eblis* in human form; praised be God who has placed a sea between him and me.”²

It was not the purpose of Abdu-r-ráhmaan to content himself with this vengeance; he set on foot an expedition to invade Syria, took Berbers into his pay, and directed Temam Ibn Alkamah, his most trusty general, to fit out a large navy in the sea-port towns;

¹La Fuente III. 107. The Spanish historian is astonished that so clement a prince should have committed so ferocious an act. Terror-striking as it is, it is in accordance with the moral strategy of the age, and nothing could have been more effective or effectual.

² Ibid, 108. Al Makkari says the remains were carried in sealed bags to Mekka, where the khalif was, and secretly placed at the door of his tent. When they were opened, the khalif made the exclamation given above, II. 81.

but notwithstanding his invincibility, rebellions were so constantly renewed that he was obliged to give undivided attention to the home affairs of his kingdom, and never carried out his project of assailing the khalifate of the East. I have only space to mention, in an almost tabular manner, these intestine troubles. The first was that of a Berber of the tribe of Meknasah (mequines), whose mother's name being Fatimah, he gave himself out as a descendant of Fatimah the daughter of the prophet. For two years he resisted Abdu-r-ráhmán, and then succumbed. Then followed that of Seville under its Governor Hayyat Ibn Mulabis, who was soon defeated.

This was followed by a rising at Algeziras, which was at once checked; and the last I shall mention is that at Saragossa, which was of far greater proportions, and involved the interference of Charlemagne. The importance of the revolt of Saragossa makes it necessary that I should devote a chapter to its special consideration.

THE FAMOUS PASS OF RONCESVALLES.

Thus it appears that the career of Abdu-r-ráhmán, however glorious, was destined to numerous troubles and embarrassments. As the head of the Ommyades, he was constantly opposed by the adherents of the Abbasides, while the various tribes, oblivious of this grand distinction, were always fighting "for their own hand." The disaffection to his government of the north-east of Spain grew out of the intrigues of the Abbasides, who made Saragossa the seat of treason.

In the contiguous kingdom of France had arisen a mighty potentate, whose ambition was only limited to the restoration under his own scepter of the Roman empire of the West, and who, while battling with the German tribes at the North, had not failed to cast a covetous eye upon the Mohammedan empire at the South. I speak of Charlemagne, the only historical character who has had the adjective *great* inwoven with his name, and who deserves the distinction. The dominions which had recognized the power of Charles Martel had been further extended and controlled by his son, Peppin le Bref, from the Loire to the mountains of Gascony, and now Charlemagne was ready to avail himself of any

opportunity to cross the great mountain barrier of the Pyrenees, and march upon the Mohammedans in their Spanish strongholds.

The unsettled state of the north-east of Spain presented the coveted opportunity. Ibn al Arabi, the wali or governor of Saragossa, in revolting against Abdu-r-râhman, sought for support in his rebellion from Charlemagne.

So, if the chronicle may be trusted, when, after subjecting the Saxons anew, Charlemagne held one of those semi-religious, semi-military assemblies¹ at Paderborn, known in French as the *champ de mai*. There the north and south served to hold rendezvous; Arab Sheiks stood beside Saxon Ethelings in the cortege of the great Charles.²

The dark skins, covered with white turbans and sayos, marked the deputation of Arabs, who had come from Saragossa to offer him a fair province of Spain, as a tributary province to his increasing domains, and thus to give to his Saxon pageant the air of a cosmopolitan triumph.

Most of the chronicles agree that in this Arab delegation were Ibn al Arabi, the wali himself, the representative of the Abassides Kasim, the third son of Yusuf al Fehri, who was burning to avenge his father's wrongs, and many others of high rank, whose presence gave token of the reality of their proposals.

It may be well conceived that the great Frankish monarch was delighted with their appearance; it presented to him more than he had dared to hope for.

It offered to him the opportunity to protect the Pyrenean frontier;³ to secure the rich cities of the North without a blow; and more than all, to restore the true faith to a region in which it had been all but rooted out, and supplied by the hateful creed of the

¹ Nombre que daban los franceses a las asambleas semi-religiosas, semi-militares de la Germania, por haber Pepino trasladado al mes de mayo los antiguos *campos de marte*.—*La Fuente III.* 134.

² Le nord et le midi semblaient's, etre donné rendezvous a Paderborn, et les cheiks Arabes figuraient a coté des ethlings Saxons dans le cortege du grand Karle.—*H. Martin II.* 269.

³ Le roi des Franks voulut saisir l'occasion de reculer sa frontiere meridionale des Pyrenees jusqu'a l'Ebre, et d'abriter ainsi definitivement l'Aquitaine et la septimanie contre les invasions musulmanes.—*H. Martin II.* 270.

false prophet ; and from which the prayer of oppressed and suffering Christians came to him, the champion of Christendom, for relief.¹

Thus, if he went no farther, he would convert portions of Navarre, Catalonia and Aragon, as far as the Ebro, into a Spanish march or neutral ground occupied by his own Arabian allies, whom he would protect against the incursions of Abdu-r-ráhmán.

The Champ de Mai at Paderborn was in the year 777. He at once made preparations to invade Spain in the execution of this project, early in the spring of the next year, 778.

The gigantic barrier of the Pyrenees, unevenly sloping toward the Mediterranean and the Bay of Biscay, rises in the central portions ; and some of its peaks, crowned with eternal snow, are eleven thousand feet in height. On either hand, toward France and Spain, the spurs and offsets of unequal height and length are like ribs from the dorsal column ; in gentle descents on the French side, but abruptly with scarps and precipices on the side of the peninsula.

The easiest routes are by the sea-coast at either end ; but a few passes, called *ports* or *puertos*, along the range, are practicable for armies. Chief among the secondary passes is that of Roncesvalles, so called from the Latin name, *Roscidavallis*, the moist or dewy valley. It is in the ancient Wasconia or Vasconia, corrupted into Gascony, and which, even in that day, began to be called Navarre.²

This pass has been a favorite one for armies in all history ; through it the Black Prince marched, in 1367, to the victory of Navarete. It was the route taken by Joseph Bonaparte, when the French under his command were defeated at Vittoria, by Wellington, 1813. It was in this valley that Don Carlos was proclaimed king of Spain by Eraso, in October, 1833.³

The approach to it from France, now made by the forces of Charlemagne, is easy. Leaving the *Landes* and the *Basses Pyrenees*, he marched by the valley of the Adour. A mountain road leads through St. Jean Pied de Port and Valcarlos into the elevated

¹ Les prieres et les plaintes des chretiens qui etaient sous le joug des sarrasins, et qui necessaient d'implorer les armes des Franks. *H. Martin, II.* 270.

² *Ibid.* ³ *Ford.* 962.

valley, the pass lying at the foot of Mount Altabiscar and the Colde Ibañeta. Thence the descending road diverges into the valley of the little river, Chariagne, and thus reaches Pampelona. The distance from St. Jean to the hamlet of Roncesvalles is about seventeen miles.

Charlemagne had marched with one division of his army to Chasseneul, in the department of Charente, taking with him his wife, Hildegard, who was *enceinte*. There he celebrated the Feast of the Resurrection, and there he was joined by other contingents from Neustria and Aquitaine.¹ There he left his wife, and with his accumulated forces proceeded to cross the Pyrenees, by the pass of Roncevalles. Other contingents crossed by the ports of the eastern Pyrenees, to unite with his forces upon the Ebro.

With the prospect of the immediate rising of the Moslems in his favor, it seemed that the conquest of Spain was to be speedily reversed, and that Islam was destined to utter ruin. He reached Pampeluna without hindrance; it opened its gates, although in the hands of the Saracens, and promised allegiance to the northern king. Then marching southward, he struck the valley of the Ebro, subjecting the towns on his route² until he approached Saragossa. His united forces deployed on both banks of the river around that city, in readiness to receive the capitulation of the wali.³ He had no expectation of resistance, but he found himself mistaken. Many things had conspired to nullify the promises of Ibn-al-Arabi. That chieftain had, perhaps, repented of his work when he saw the Franks advancing.

The Moors felt a growing repugnance to the idea of placing any portion of the realm conquered by Islam in Christian hands, with a powerful alien army. The walis of Huesca, Lerida and other cities roused their people to resist, and the inhabitants of Saragossa, joining in the general dissatisfaction, closed the gates, and resolutely refused to admit the Christian garrison.

¹ *H. Martin, II.* 270. Chasseneul or Casseneuil is situated on the river Lot, about eighteen miles from its junction with the Garonne.

² La Fuente says:—"Talendo y devastando sus campos" (laying waste and devastating their fields); but I see no reason for such destruction, and I do not find the assertion in other authorities.

³ *H. Martin, II.* 271.

The situation was embarrassing in the extreme. The number, manhood and valor of the Franks were equal to the emergency, but it was a most unwelcome emergency. Expecting a cordial reception, with ample supplies furnished to his army, he found himself instead without provision. He must either fight for them or retire at once. He began to negotiate, and found the Moors were ready to pay tribute, and acknowledge a nominal protection, and so, receiving their tribute money, and taking hostages for their good behavior, he began his retrograde march, which was farther hastened by the intelligence of new risings against his authority at the north.

Thus, retracing his steps, he returned to Pampeluna. Of that town, with very doubtful expediency, he destroyed the walls to render the nearest stronghold to his dominions impotent to revolt,¹ and sending some of his forces by other passes, he set out with the main body to recross the Pyrenees by the pass of Roncesvalles.

In accosting the event which is now to follow, the historical student finds himself suddenly in a region of romance, so filled with miraculous stories, enchanted personages, confusing sounds and gigantic performances, that he is in great danger of sharing, if not the madness of Don Quixote, at least the poetic wanderings of the Morgante, the Orlando Innamorato, and the Orlando Furioso. Angelica and Agramont and Ganelon contest the field with Roland and Bernardo del Carpio. The real personages have been given over by history to legend, and to reclaim them is a difficult and dangerous task. I shall present the history and mention the fables.

Not to burden the pass with numbers, Charlemagne divided the main body into two corps—the first, with which he was marching without *impedimenta*, and the second, at a considerable interval, guarding the baggage and treasures, “a great weight of gold,”² which they had received from the Moors. The first division defiled slowly and without hindrance through the port of Ibañeta,

¹Some writers assert that Charlemagne was not admitted, on his first entrance into Spain, without a fight into Pampeluna, and offer in proof a medal struck in that same year, with the motto: “*Capta excisique Pampelona.*” I think there is no doubt that this refers to the extinction of the defenses of Pampeluna on his return march.

² *La Fuente III.* 136.

and descended the valley of the Nive; but the second was to bear the brunt of a terrible disaster.

Quietly, and without the knowledge of the advancing hosts, the Gascons, who, in the wars of Aquitania, had suffered at the hands of the Franks, had agreed to rendezvous on Mt. Altabiscar and the adjacent heights. With them were probably a contingent of Moors, who were even less attached to the Moslem dynasty than the inhabitants of Saragossa, but who made common cause with the Gascons¹ against the Christian infidel.

The second corps, or *arriere garde*, had entered the pass, and was winding slowly through to the narrow path which skirts the foot of Mt. Altabiscar, in careless security, ignorant of the presence of an enemy. It was composed of the flower of Frankish chivalry, the noblest of the *leudes*, and those to whom their station in the *palace* near the king had given the name of *paladins*, men of family pride and warlike renown.

Suddenly a thousand horns ring out their blatant peals from the mountain tops: the train halts; the knights grasp lance and sword to meet a living foe, when they see instead an avalanche pouring upon them; huge rocks, torn from the earth-grasp of ages, branches and trunks of trees and clouds of arrows to fill the intervening spaces. Those who are not at once crushed fly back to the rear and choke the narrow pass, but there is no place of safety; the terrible storm still comes down, defying human might and prowess. The armor which gives victory in open field, is here an element of destruction. The heavy and iron-plated horses cannot maneuver; helmets, hauberks, heavy axes, long lances, are but a hindrance and embarrassment:² fettered strength; paralysed activity.

Upon this bleeding and confused mass the Gascon mountaineers spring lightly down, and pierce the falling and the fallen through with their sharp boar spears and javelins. When the danger of

¹ Although this statement partakes of the poetic license, there is no doubt that the destruction was very great.

² There has been much contention on this point. The legends make the attacking party the king of Saragossa and his men, with whom were joined a force from the new Hispano Gothic kingdom in the Asturias. This is a mistake. H. Martin says (II. 272): "C'étaient les Gascons de l'Espagne et de Gaule. Toutes les haines amassees dans le cœur des Escaldunae. * * S'étaient reveilles avec fureur," etc.

resistance is at an end, they pounce greedily upon the baggage, possess themselves of the treasure, and fly with the coveted spoils again to the mountain fastnesses.

The fancy can easily depict the sights and sounds of the gloomy night which now fell upon the field. The rear guard of the Frankish army had perished to a man, at least so says the chronicle;¹ all was silent save the doleful music of the dying groans. Gentle and simple lay mixed without distinction: it was indeed the "dolorous rout" of Roncesvalles, but the routed were rescued from flight by death.

The only contemporary account, that of Eginhard, the biographer of Charlemagne, and author of the *Annales des France*, enumerates among the distinguished men who fell, Eggihard, major-domo of the king, Anselmo, count of the palace, and Roland, prefect of the marches of Brittany.²

The suddenness of the attack and the rapidity of the carnage made it impossible for Charlemagne to succor them; before he could have returned to do so, the Gascons had escaped with their spoils, and were hidden from all hope of finding in their mountain retreats.

With a heavy heart he marched northward, without stopping until he was again at Chasseneul, where we may suppose he found a slight solace in the fact that his wife had been safely delivered of a son, who was to figure in the later history as Louis le Debonnaire.

We may now turn to consider briefly the legendary side of this battle. From it sprang numerous fables, tales of romance, ponderous heroic poems, curious names for spots and flowers. All group around Roland. He was the brightest name among the twelve peers who surrounded Charlemagne. His love passages were celebrated by Bojardo in his *Orlando Innamorato*; his madness,

¹ *Vita Caroli Magni. C. IX.* This is the only passage found in any historian which mentions the celebrated Roland, who plays so prominent a part in the Carlovingian epics. He is *supposed* to have been the son of Milo, Count of Angiers, and Bertha, the sister of Charlemagne.

² Embarrasses par leurs heaumes, leurs hauberts, leurs pesantes haches et leurs longues lances.—*H. Martin, II. 272.*

brought on by unrequited affection, is the burden of Ariostos' *Orlando Furioso*:

"Diro' d'Orlando, in un medesimo tratto,
Cosa non detta in prosa mai, 'ne in rima."¹

From his helmet is named a flower of the locality, La casque de Roland. Charlemagne is not more the greatest personage of the history of the age, than is Roland the greatest hero of its romance. The notes of his horn fill a cycle.

Dante alludes to its fabulous power, and at the same time to the crusade-like character of the invasion against the infidel, when, speaking of the terrible sound, in his *Inferno*, he uses it as an illustration:

Dopo la dolorosa rutta, quando
Carlo Magno perde la santa gesta,
Non sono sì terribilmente Orlando.²

He sounded so loud, says the legend, that he burst the veins of his neck. One account tells how, with his famous sword Durandart, at one blow he severed a mountain in two, without breaking the edge, and then he broke his sword that it might never serve his enemy.

Another, that he threw Durandart with superhuman strength, and thus cleft the rock.³

Shepherds still show the ineffaceable mark of his horse's iron shoes, where a horse could hardly climb, except in romantic legend.

Fabulous as are these details, the influence of the fable has been as marvelous as are the legends themselves. The vivacious Mediterranean nature has been fired again and again by his reputed prowess. It was to the *Song of Roland*,⁴ written by Theroulde in the eleventh century, that the jongleur Taillefer advanced to certain death on the field of Senlac, in the van of William the Conqueror.

In the *collegiata* of our Lady of Roncesvalle, founded by San-

¹ *Orlando Furioso*. I. 2.

² *Div. Comm. Infern.* 31, 6.

³ I prefer the causality of the latter account, for the *Breche de Roland* is more than fifty miles from Rousesvalles, at the foot of Mt. Perdu, and is reached in direct route from Tarbes by the Gave de Pau and Gavarnes.

⁴ Published among the *Chansons de Roland*, by Francisque Michel.

cho the Strong, there are still great sepulchres of stone, containing human bones, lance heads, maces and other remains which tradition assigns to the fatal field.¹

The chief source of the later legends is a work entitled *De vita Caroli magni et Rolandi*, in which is related the expedition of Charleniagne into Spain. It is erroneously attributed to Turpin, Archbishop of Rheims, in the time of the great emperor, but is manifestly of a later day, probably the eleventh century.² Some of the marvels are so prodigious that they have no force even as allegories.

In the midst of the confusion of legends, it is very pleasing to find, among the *Basque* songs commemorative of the battle, one which, for fidelity to the spirit of the age, and the true character of the conflict, is very striking and very refreshing. It takes us back, beyond the middle realm of fable into the sunlight of truth. It is the *Altabizaren Cantua*, written in the Basque language, probably in the ninth century.³ The reader will best judge of its value by a translation, which, however, fails to present the verbal power of the Basque chant. It is certainly notable for its energetic simplicity; its air of primitive rudeness, its spirit of impassioned patriotism, and of rustic and fiery independence.

THE SONG OF ALTABIZAR.

I. A cry has gone forth

From the midst of the mountains of the Escaldunacs,
And the Etcheco-Jaona,⁵ standing before his door,
Open's his ear and says, "Who goes there? What do you want?"
And the dog who was sleeping at the feet of his master,
Springs up and makes the environs of Altabizar resound with his barks.

II From the hill Ibañeta a noise resounds;

It approaches rumbling along the rocks from the right and from the left,

¹ *La Fuente*, III. 138.

² It was first translated into French in 1206, at the instance of Renaud, Count of Boulogne.

³ *La Fuente* gives a prose translation in Spanish, and H. Martin publishes, in the *eclaircissements* of his 2d vol., Montglave's translation in French.

⁴ Entre los cantos de guerra que han inmortalizado aquel famoso combate, es notable por su enérgica sencillez, por su aire de primitiva rudeza, por su espíritu de apasionado patriotismo, de agreste y fogosa independencia * * el de *Altabizaren cantua*.—*La Fuente* III. 139.

⁵ Lord of the manor.

It is the dull hum of an army which is coming,
Our men have heard it from the summit of the mountain,
They have sounded their horns,
And the lord of the manor sharpens his arrows.

III. They are coming, they are coming, what a hedge of lances !
How the parti-colored banners are dancing in their midst ;
What flashes are glinting from their arms !
How many are they ? Boy, count them well :
One, two, three, four, five, six, seven, eight, nine,
Ten, eleven, twelve, thirteen, fourteen, fifteen,
Sixteen, seventeen, eighteen, nineteen, twenty.

IV. *Twenty*, and still there are thousands behind :
It is but lost time to count them,
Let us unite our strong arms, let us root up the rocks,
Let us hurl them from the mountain top
Upon their heads !
Let us crush them ! let us slay them !

V. And what business have they in our mountains, those men in the North,
Why have they come to disturb our peace ?
When God made mountains, they were not for men to cross.
But the rocks roll and fall ; they crush whole battalions ;
Blood is spurting, flesh is quivering ;
O ! how many pounded bones ! what a sea of blood !

VI. Fly, fly, all ye who have strength and a horse !
Fly, King Karloman, with thy black plumes and red cape !
Thy nephew, thy bravest, thy beloved, Roland, lies dead below ;
His valor could not serve him.
And now, Escaldunac, leave the rocks,
Let us descend quickly, pouring our arrows into those who flee.

VII. They fly ! they fly ! where is now the hedge of lances ?
Where are the parti-colored banners dancing in their midst ?
Light flashes no longer from their arrows soiled with blood.
How many are they ? boy, count them well !
Twenty, nineteen, eighteen, seventeen, sixteen,
Fifteen, fourteen, thirteen, twelve, eleven, ten,
Nine, eight, seven, six, five, four, three, two, one.

VIII. One ! There is not even one !
It is done ! Etcheco-Jaona, you may go in with your dog,
And embrace your wife and children,
Clean your arrows, lock them up with your horn, and then go to bed and
sleep.

To-night the eagles will come and eat the broken flesh,
And all these bones shall be whitening forever.¹

Although the battle in the pass of Roncesvalles was chiefly between the Franks and the Gascons, it has been here described because of its immediate connection with the fortunes of the moslemah in north-eastern Spain. The Spanish march thus established curtailed their dominion, and left Abdu-r-ráhman in continual concern. While it secured the Franks from incursions through the Pyrenees, it left that region a theater for the quarrels and intrigues of Moslem chieftains.

Hussein Ibn Yahiya, of the Abasside faction, turned against Ibn al Arabi, and caused him to be assassinated, and even went so far as to declare himself independent ameer of Saragossa, with its adjacent cities.

Abdu-r-ráhman marched against him, besieged the chief city, and, with extraordinary clemency, received the submission of Hussein. Nor was this all; he marched to Pampeluna, and thence to the scene of the rout at Roncesvalles. He did not cross, but resting there for a brief space, as if in defiance of the Franks, he proceeded to restore his authority in Gerona, Barcelona, and Tortosa, and pacifying the people and towns in the valley of the Ebro, he returned to Cordova. But this was rather a pacification than a re-conquest, and he never again could claim the Spanish march as indisputably under his government.

Twenty-five years had now elapsed since the Ommyan wanderer had established his title as Addakkel or the *Opener* of Spain to the proscribed dynasty of Damascus. He had acquired much glory, but had enjoyed little repose. It was a history of the rebellions undertaken, subdued and renewed. Among these the most troublesome were those of the sons of Yusuf, who displayed a constancy in the cause of their family which is among the most

¹I am tempted to give one stanza (the third) in the original Basque, that the reader may appreciate the manifold effect, guttural, consonantal and diphthongal :

Hogoi eta milaca oraino,
Hoien condatcia deubora, gastcia litake,
Hurbildet çagun beso çai lac errhotic alherabet çagun arroca horlec.
Botha detçahun mendaren petharra behera
Hoien burmen ganezaino,
Leherdet çagun, herruoaz indetçagun.

Most of this, if in the Greek character, would look, as it sounds, like Greek.

striking and interesting considerations of these confused and troublous times.

One of them, Abul Aswad, had been captured by Abdu-r-ráhma-man, and had been confined in a tower for many years at Cordova. He was a prisoner for many years, and had so gained the goodwill of his captors that they trusted him even to leave his prison on the promise of return. But in the year 781, when he had concerted with his adherents, he escaped, swam the river, and raised the standard of El Fehri,¹ around which six thousand warriors rallied at once.

But the patience and constancy of Abdu-r-ráhma-man were equal to the emergency. He at once advanced to meet the threatening revolt. The hostile forces met in the fields of Cazorla.² The insurgents were totally defeated; their loss was four thousand six hundred. Many were drowned in the waters of the Guadalimar. Of the flying remnant some endeavored to conceal themselves at their homes; others fled to the mountains, while the unfortunate Abul Aswad escaped a new capture by flying to the regions of Estremadura and Algarbes; and there, leading a concealed life, died at last an obscure death.

But the flight of Abul Aswad only left the delegated task of vengeance to another son of Yusuf. Casim, the third son, speedily collected the remnant of Cazorla, and again raised the family standard. What might have been his chances, had there been no complications, we cannot say, but Abdallah, the son of Marsilio, succeeded in capturing him, and bringing him to the ameer, at Lorca. It might be supposed that, with the last hope of the Fehrites in his power, Abdu-r-ráhma-man would have destroyed the faction forever by ordering the instant execution of Kasim, but we are called upon to eulogize an act of clemency more praiseworthy than the valor or the patience he had yet displayed. It deserves to be ranked among the grand magnanimities of history. He took off his chains, gave him lands and a pension at Seville, and on this occasion the clemency was not misplaced: the last remaining son of Yusuf became the faithful friend and adherent of his generous conqueror.

¹He had feigned blindness, which deceived his keepers—*La Fuente, III* 146.

² Within the province of Jaen, and forty miles east of the city of Jaen.

We reach at last the close of Abdu-r-ráhman's truly great and adventurous career. So little has Christian literature known of it, and so persistent is the hatred of the Spanish historians, that one of the greatest governors and generals of modern history has been regarded as a fabulous character, and stands in a nebulous light. For thirty years he had been a conquering sovereign, the founder of a dynasty upon the ruins of a former one: really the artisan of his own fortunes. With him was really completed the conquest of Spain, and his conquering family were to sit for nearly three centuries upon its throne. Following his directions and example, they were to make Cordova superior to Damascus or Bagdad.

Upon the mosque, which he did not live to complete, he worked with his own hands an hour daily: he founded the schools and hospitals around it, and endowed them. With him began that superior eminence in arts, in science, in general literature, in social life, which constituted Mohammedan Spain from the 9th to the 11th century, the world-center of human culture. His personality was as well known, and has been as well preserved as that of the prophet himself. "He had," says Ibn Zeydun, "a clear complexion and reddish hair, high cheek bones, with a mole on his face; he was tall and slender in body, wore his hair parted in two ringlets, could only see out of one eye, and was destitute of the sense of smelling. He left twenty children, eleven of whom were sons, the remainder daughters."

He was, in general, liberal, and is noted for his ready wit and eloquence. But his fair character is marred by his reputed ingratitude to Bedr, his trusty freedman, to Abu Othman, who first conspired in his favor, to Abu Khaled, who aided Abu Othman, and worst of all, to Temam Ibn Alhamah, whose son he executed.

When he found the term of his life approaching, he prepared calmly to make a fitting end. He summoned his hagib, or prime minister, his provincial walis, the governors of the twelve principal cities, his twenty-four wizirs, and in their presence he declared his son, Hisham, his *wali al hadi*—successor to the throne. It was the act of a monarch, and of an arbitrary one, for Hisham was his third son, and he thus excluded from the succession the two elder, Suleyman and Abdullah; but if arbitrary, it was judicious, for Hisham was far the ablest of the three.

With his little remaining vitality he set out in a litter to Merida, accompanied by his favorite son and successor, leaving Abdullah in command at Cordova, and Suleyman as governor of Toledo. He had hardly arrived at Merida when he died, on the 30th of September, 788, at the age of fifty-nine.

His body was removed with great pomp to Cordova, where his son, Abdullah, recited the funeral services at his grave.

This great man, feared by the eastern khalif, obeyed by his own people, was called by the Christians "the Great King of the Moors," and by Roderik of Toledo, *Adahid*, the Just. "Charlemagne," says a contemporary writer, "the colossal figure, who looms up in that age, is belittled in comparison with Abdu-r rāhman."¹

HENRY COPPÉE.

POTTERY AND PORCELAIN.

THE interest that has lately been aroused in this country in ceramic art is becoming so general as to warrant us, we hope, in calling the attention of our readers to some of the recent publications on the subject. One of the most satisfactory of these that has come under our notice is *Les Merveilles de la Céramique*, by M. Jacquemart. It will be found interesting by the student who enjoys tracing the history of the civilization and religion of a country in the humblest forms of its arts, as well as useful to the curiosity collector, who cares only to be able to prove the antiquity and rarity of his fragile treasures.

² Mr. Treadwell's *Manual of Pottery and Porcelain* is the first

¹ Carlo-Magno dice un escritor contemporaneo, la figura colossal en aquel siglo, queda rebajado en comparacion de Abderrahman.—*Alcantara, Hist. de Granada. Tom I.*

¹ *Les Merveilles de la Céramique*, ou l'art de faconner et de decorer les vases en terre-cuite, faïence, gris et porcelaine; depuis les temps antiques, jusqu'à nos jours, par A. Jacquemart, Auteur de l'Histoire de la Porcelaine. En trois parties. Paris: Hachette & Cie.

² *A Manual of Pottery and Porcelain for American collectors*, by John Treadwell, New York: G. P. Putnam's Sons. For sale by J. B. Lippincott & Co. Price, \$2.75.

book of the kind, we believe, by an American, and, we are forced to confess, is not by any means all that is to be desired. We shall have occasion, later, to point out some of its most obvious defects.

For those who desire a royal road to knowledge, we shall attempt a sketch of the contents of the first part of M. Jacquemart's work, combined with information from other sources.

The European traveler will doubtless remember the little idols in the shape of the vulture, ibis, jackal and beetle, of brilliant turquoise blue, with which he must have been struck in visiting the superb Egyptian collection of the Museum of the Louvre. These products of the Egyptian potteries, for such they are, although so hard and dense in substance as to occupy a sort of middle ground between storeware and porcelain, are found in Egyptian tombs. They are formed of silicious earths, that is to say, of clay and flint, or silica. The usual proportion of clay to silica in English stoneware is about eighteen to fourteen: in the Egyptian it is ninety-two of clay to one hundred of silica. This extraordinarily large proportion of flint accounts for the excessive hardness and durability of the composition.

The peculiar hue of the blue glaze or enamel is due to the use of the oxide of cobalt. As we shall have occasion to speak of enamels frequently, it may be well to explain that enamel is glass, made opaque by the oxide of tin, and rendered fusible by the oxide of lead. All glazes that contain lead partake of the qualities of enamel; thus the two terms are sometimes used almost interchangeably, and in a manner confusing to the inexperienced.

There is but little variety in the ornament of Egyptian vases. It consists in designs, either painted or encrusted, of the lotus flower, conventionally treated, with simple but beautiful borders of zigzags and a sort of vine; sometimes we find the egg and dart border, which we are accustomed to associate only with Greek art.

This apparent barrenness of invention has caused the supposition that the Egyptian decorators felt their want of power in the successful application of color; the fact, however, that the colors most difficult to apply, in juxtaposition, are often found within small spaces in most happy combinations, leads us rather to conclude that the artists of that period yielded to the restrictions imposed by their laws of religious symbolism.

The most flourishing period of Egyptian art is supposed to have existed seventeen centuries before Christ. The ceramic art divides itself into three distinct periods. The most ancient pottery is composed of a substance resembling the biscuit of true porcelain, sometimes with scarcely any lustre, and never with a thick glaze. The second period exhibits an inferior style of workmanship, and a glaze so thick as to be scarcely distinguishable from enamel. In the third period the silicious potteries previously prevailing give place to a soft, coarse paste, the decoration of which is sometimes painted on the raw surface, sometimes covered by a glaze. The influence of Greece is very apparent in the potteries of this period, which lasted until the second or third century of our era, after Egypt had succumbed to the power of Rome.

Two parent branches of European pottery diverge from Egypt, which it will be well to fix in the mind; one, that of hard pottery, or silicious earths, spread over China, Persia, and India, and reaching Europe by means of the Arabs, was the parent of enameled faïence or crockery. The other, that of soft pottery, terra cotta, or, in other words, earthenware, was perfected by the Greeks and Romans, existed in Europe for centuries, and still exists, in spite of its more durable and serviceable rival, porcelain.

M. Jacquemart next glances at the ceramic art of the Hebrews. Inasmuch, however, as but one authentic fragment of their pottery is to be found in the Louvre, they are quickly disposed of. It is natural to conjecture, that except in the absolute exclusion of human or animal representation, their system of ornamentation would be derived from the Egyptians, with whom they so long sojourned. The fragment above mentioned bears the same colors as those found in Egypt, and is composed of silicious earths. Since we know that the Jews used only the precious metals for their tabernacle and temple worship, it is likely that their potteries were devoted to household uses, and perhaps received but little attention, as far as decoration is concerned.

We next come to China, the country which for centuries had possessed the ceramic secrets that were the despair of Europe. How the Chinaman discovered porcelain we do not know, but it may be safe to assume that it was in some such fortuitous manner as that in which, according to Charles Lamb, he found out the

superlative charms of roast pig. The Chinese themselves claim to have been potters as early as 2698 B. C. Probably this early pottery was not porcelain, for, so far as can be ascertained; the latter was not made until between the years 185 before, and 87 after, the Christian era. Rumors of its earlier existence have obtained belief, arising from the discovery of Chinese bottles in Egyptian tombs. Careful examination has proved that these objects are of a later date, however. China, notwithstanding her subsequent success in the manufacture of porcelain, doubtless began with the more humble materials of pottery. The specimens of the oldest potteries are composed of a very hard, blackish, ferruginous earth, covered with a semi-opaque coating, intended to conceal the color of the clay beneath.

This coating is called *celadon*, literally sea-green, but it is applied to shades ranging from a reddish gray to sea-green. For the decoration of the former shades, the peculiar ornament called *crackle* was generally employed; for the latter, either raised flowers or designs, which, first hollowed out on the surface of the vase, were afterward filled in with the enamel.

Crackle is so well known to amateurs that we must stop a moment to enlighten the ordinary reader as to its merits, and mode of production. Most housekeepers have observed that pudding dishes, etc., when subjected to a high temperature, are almost sure to be covered with a fine net-work of cracks (technically called *crazing*), and will wish to know wherein consists the charm of crackle over this very common domestic phenomenon. Now, in common crockery, the explanation of the producing cause is simple enough. The clay beneath the glaze is porous and spongy in texture, and expands when exposed to a high temperature; the glaze, on the contrary, is non-expansive, and separates into the millions of little cracks with the appearance of which we are so well acquainted. In crackle, the body of the object and its enamel are of homogeneous composition, and unless artificially treated, would expand and contract together. The Chinese have discovered ways of modifying this simultaneous action, and were able to rely with absolute certainty on the result of their combinations in the production of large, small and medium crackle on the same object. The processes employed were various. If, on taking a vase from the hot oven, it was immediately exposed to cold air,

or suddenly chilled by pouring cold water over it, deep seams and fissures resulted, which were afterward filled in with black or red. By another process, cracks so fine were produced, as to be accessible only to the infiltration of colored fluids.

Before proceeding with the description of the wonderfully ingenious combinations of the Chinese, we must explain the composition of true or *kaolinic* porcelain. Kaolin is a clay consisting of decomposed felspar. It is white, fine and dense in substance. Its constituent ingredients are found to be silica 52, alumina 42, oxide of iron 0.33. Pe-tunt-se, which forms the glaze, is of a brilliant white, is soft to the touch, and exceedingly fine in grain. It is cut from the quarries in blocks, subjected to an elaborate process of pounding, first with iron mallets, afterward in mortars, and when reduced to an impalpable powder is mixed with water. A creamy substance which rises to the surface of the water is skimmed off and thrown into fresh water; the latter, when poured off, leaves a sediment, which is mixed with a proper proportion of kaolin, and when hardened in moulds is fit for use. Kaolin, being softer, undergoes a less laborious trituration. Notwithstanding its softness, it is the kaolin that gives body to the porcelain. It is said that when some Europeans privately obtained possession of some blocks of pe-tunt-se, and had them carried to Europe, where they vainly tried to turn them into porcelain, the Chinese manufacturers hearing of their failure, sarcastically remarked that Europeans were certainly a wonderful people, to go about to make a body whose flesh was to sustain itself without bones.

The experiments of Reaumur led to the discovery of the fact that porcelain is a semi-vitrified compound, in which one portion remains infusible at the greatest heat to which it can be exposed, while the other portion vitrifies at that heat, and, enveloping the infusible part, produces that smooth, compact and shining texture, as well as transparency, which are indicative of true porcelain. Reaumur made two little cakes, one of kaolin, the other of pe-tunt-se. The kaolin remained unfused when exposed to the heat of a porcelain furnace, while the pe-tunt-se was completely fused, without any other aid. The experiments made on Oriental, Saxon and French porcelains of that date (1729) proved that the former

were hard, and remained infusible at the highest temperature to which they could be subjected, while the latter melted.

Besides these two earths, the Chinese use certain oils and varnishes for the perfection of their porcelain. The factories of King-te-tchin, established between A. D. 1004 and 1007, have always been the head-quarters of production, and had the privilege of furnishing the decorative objects designed for the use of the emperor. D'Entrecolle, a French Jesuit priest, wrote an interesting account of this curious town in 1717, and it is sad to think that the Tai-ping rebellion of 1851-61 has laid waste its once prosperous manufactories, and, if we are to believe M. Jacquemart, has forever ruined the porcelain production of China. The famous porcelain tower is also said to have been destroyed during this rebellion. The highest point of excellence to which the Chinese have attained is supposed to have been during the fifteenth century. The blue porcelain is among the most highly-prized of the early manufactures, and it is on it that the greatest number of inscriptions are found. The sub-division of labor in a factory accounts for the perfectly traditional and conventional character of Chinese ornament. A vase, after its formation, is given into the hands of a painter, who simply lays on the bands of color intended to define its edges. He passes it to another, who draws the outline of the flowers, the petals of which are filled in by a third; a fourth paints only water, a fifth mountains, and a sixth introduces the birds and animals. This method naturally precludes any attempt at individuality of style, but enables the connoisseur to establish a system of classification. In this connection it may be well to advert to the system of symbolism that doubtless greatly influenced the decorators. The fundamental colors were five in number. They correspond to the elements, and also have some incomprehensible connection with the points of the compass. Red belongs to fire and the south; black, to water and the north; green, to wood and the east; white, to the metals and the west. In another system the earth is yellow, and its special figure is a square. Fire is a circle; water is represented by a dragon, mountains by a doe, birds, beasts and reptiles under their natural form.

The various dynasties have also had their particular colors. The

one now in power, the Tai-thsing, uses yellow. The previous one, the Ming, adopted green ; it is unfortunately impossible to consider these imperial colors as safe guides, since they may also have been used as expressive of religious thought, or may symbolize the elements, the stars, or the divisions of the universe.

M. Jacquemart endeavors to classify the immense variety in groups or families. Among the most usual, he places the decoration of the combined chrysanthemum and peony. The vases thus painted are used in gardens, or on the outside of the houses, and also inside. In the latter case they are filled with plants, or when provided with covers serve as receptacles for the tea crop. It is of this porcelain that table services for the Chinese themselves are made, but all the pieces are relatively smaller than those intended for exportation.

The green group is so named, not from its ground, which consists of a pure, smooth white, but from the brilliant green obtained from copper used in its decoration. Green, it will be remembered, was the color adopted by the Ming dynasty, which occupied the throne between 1368 and 1615. Thus the vases belonging to this group are supposed to have had a sacred or historic origin. The subjects represented are symbolic flowers, combats of the gods in the clouds, scenes from the lives of the emperors, and other great men, taken from the legendary literature of the country. Besides green, the colors are a pure red of the oxide of iron. Violet, obtained from manganese, sky-blue, lapis lazuli, gold, brownish yellow and straw color. The pink or rose-colored group, like the green, is so called from its decoration, in which a purplish carmine, shading down to pale pink, predominates. This peculiar tint is obtained by dissolving gold in aquaregia (nitro muriatic acid) and is known in Europe as purple of Cassius, from the name of its European inventor, who was ennobled by Charles XI., of Sweden, in reward for his discovery. This group is preëminently enameled porcelain, and some of it is so delicate as to have received the name of egg-shell china. The subjects of its decoration are flowers, birds and insects, landscapes, domestic and theatrical scenes. The period of its production seems to have been from the middle of the fifteenth to the end of the sixteenth centuries. Time and space fail us when we attempt to describe the further wonders wrought by the

Chinese, and we must refer our readers to M. Jacquemart for detailed accounts of the porcelain of the second quality, the cloisonné or grains de riz porcelain, the superb later potteries, and the reticulated porcelain, interesting specimens of which are to be seen in the Japanese palace at Dresden, a shrine to which every lover of porcelain should make a devout pilgrimage. This reticulated work has been practiced both at Meissen and Sevres with very great success. Japan naturally follows China, if it be not contemporaneous in ceramic arts. Both Japan and China seem to be indebted to Corea for their first models in porcelain, if we may trust to rather questionable traditions, which, among other doubtful matter, describes the arrival at Japan of a Corean vessel bringing a colony of Coreans, who settled themselves in the province of Omi, where they established a corporation of porcelain manufacturers. The secret of the composition did not become known for seven hundred years, when a Buddhist monk of Corean descent published the mystery, and the production of porcelain ceased to be a monopoly.

The products of the Corean potteries, long in request in China and Japan, and later in Europe, when the Dutch had begun to import porcelain, have long since ceased. Those which remain must always be interesting not only for their intrinsic merits (which are great), but because as a result of the intermediate geographical position of the peninsula, they demonstrate the leading peculiarities both of Japan and China.

Japan is so rapidly becoming open to the influences of western civilization, that we shall soon look in vain for the distinctive productions that have an original charm not to be found in the recent somewhat clumsy imitations of European form and ornament. The ordinary Japanese wares, being very like the Chinese, require no separate notice, but the higher qualities are quite distinct. The feudal constitution of the country aggrandized the power of the nobles, many of whom kept up factories of porcelain at their own expense, and in them made most superior specimens for their own use. The system of division of labor, so destructive of originality among the Chinese, was not pursued in these factories, and thus an article commanded a price corresponding to the artistic ability of its decorator. Few, unfortunately, of these exquisite specimens have passed out of the country, except

as presents to representatives of foreign powers, and, as may be supposed, most of these have found their way to Holland.

Among what M. Jacquemart calls "*Porcelaines Artistiques*" are the mandarin vases. The word *mandarin* is derived from the Portuguese "*mandar*," to command, and in its original sense means simply a government official. Each grade of office has its distinctive badge, and the mandarin vases are those on which persons wearing these badges conspicuously figure. M. Jacquemart accounts for their Japanese origin in the following manner: The office of mandarin was introduced into China by its Tartar conquerors, who at the same time prescribed an entire change in the national costume. So intense was the hatred of the conquered race to their new rulers, that it is believed that no Chinese representation of mandarins was made at that or a subsequent period; at least none have been discovered; the Japanese of course had no patriotic scruples to restrain them from what was no doubt a profitable style of decoration, consequently we find that large numbers of these vases were made in Japan. They have always been highly prized in Europe and have brought very high prices at sales.

The Dutch did much to stimulate the manufacture of porcelain in the 17th century, by importing it in great quantities. In 1664 nine hundred and forty-three pieces arrived in Holland. The Japanese style of ornament being too sober and deficient in flowers for the Dutch taste, a brilliant Dutchman invented a flower, and sent it to the Japanese to imitate. This hybrid decoration obtained immense success among the porcelain fanciers of the day.

The so-called vitreous porcelain, quite peculiar to Japan, we believe, owes its translucent density, not to kaolin, but to an excessively hard stone which, reduced to powder, gives it its resemblance to jade. The Japanese proverb, that porcelain is made of human bones, finds its verification in the fact that the most exhausting labor is required in preparing the materials for this variety. Its decoration is generally very simple. A network tracery of bamboo leaves, or an outline of the long extinct volcano of Fousiyama, are sketched on a white ground as thin as paper. The ancient specimens of this porcelain are very rare, but the Japanese continue to make it. One of the more distinctive styles of ornament, in which they are particularly successful,

is the application of lacquer and mother of pearl to the surface of porcelain. Sometimes these are used in combination with crackle. The latter has always been highly esteemed among them, and as much as 7,500 francs have been paid for a single vase, if of unimpeachable antiquity. Some specimens from the factories of the prince of Satzouma were exhibited in Paris at the last "Exposition Universelle," and were much admired. They were of stoneware, with a coating of crackle decorated with gold and enamel. It was observed that the older these specimens were the more subdued was their decoration.

From Japan M. Jacquemart passes to Asia Minor. Brougnart, one of the highest authorities on ceramic matters, has stated that if the seven colors in the walls of Ecbatana in Media, described by Herodotus, were of enamel applied to terra cotta, ceramic art must have existed in Asia Minor at a very early date. However this may be, we know that, taking as a minimum of their antiquity, the destruction of Babylon by Darius in 522 B. C., the Babylonish bricks possess the respectable age of 2,395 years. These bricks are of a pinkish yellow; their glaze shows no trace of either lead or tin. The colors of their decoration are the Egyptian turquoise blue, a deeper greyish blue, with white and yellow.

Similar fragments from Phœnicia, Assyria and Armenia, afford interesting examples of the progress of the discovery of glass, in proportion as they exhibit the use of vitreous enamels.

Some of the terra cottas found at Tarsus in Cilicia, possess a purity and severity of style which would have done credit to the Greeks themselves.

It is scarcely to be supposed that the Greeks and Romans should have cared to employ ceramic enamels architecturally, since both nations had at their command marbles of superb color and quality. The eastern nations, on the contrary, seem to have craved the subdued gorgeousness of tile decoration, harmonizing, as it did, with the splendor of their textile fabrics and the incrustation of their furniture and utensils with gold and jewels; it is, therefore, among them that we must look for the true birthplace of architectural tiles, and these we find in perfection in Persia. Persia, like China, abounds in clays suitable for potteries, as well as the kaolinic substances required for porcelain; as may be supposed, therefore, we find beautiful specimens, including almost every

variety of composition, among the Persian potteries. M. Jacquemart, in describing the peculiarities of Persian decoration, glances at the religious history of this remarkable nation; the Zoroastrian belief, although comparatively pure, did not by any means exclude symbolism, or the representation of men and animals. Afterward, when the all-conquering followers of Mahomet had subjugated Persia, it was not possible to eradicate the artistic habits and tastes of its original inhabitants, even after they accepted the new religion; we must not be surprised, therefore, to see representations of the human form and of animals, and encouragements to wine drinking which would be quite out of place in the more rigid and orthodox atmosphere of Turkey. In truth, the artistic impulses of the nation and its intellectual development constantly overstepped the bounds prescribed for it. From this state of things, an odd sort of jesuitical compromise grew up, by which the letter of the law was observed, while it was broken in the spirit. This consisted in the depicting of monsters unlike any real creature, or in uniting human heads to the bodies of beasts or birds. It is in Persia that the first examples of the iridescent or lustrous potteries, afterward imitated by the Arabs, and still later by Maestro Giorgio da Gubbio, originated. In the little church of San Giovanni del Toro at Ravello, near Naples, there is a superb ambone dating from the twelfth century, in which are introduced plaques of Persian faïence. Similar ones are to be seen in the church of San Andrea, at Pisa. The workmanship of these plaques shows that at this early date the manufacture of faïence had reached an advanced stage, and that its exportation had already commenced.

We would gladly follow M. Jacquemart in his study of the Indian and Hispano-Moresque potteries, but want of space forbids. The latter are peculiarly interesting, from the fact that almost all the authorities on the subject unite in the opinion that the Italian *Majolica* is so named from the island of Majorca, whence the first specimens of it found their way to Italy, and stimulated the Italians to imitate them in their own potteries.

The second part of the *Merveilles de la Céramique* begins with the potteries of Greece and Rome. Between these and the potteries of the middle ages a great gulf intervenes. At this latter period the revival of architecture in the Gothic form supplied a

stimulus to the other arts, and the use of tiles for the flooring of churches created a demand for ornamented pottery. A vessel, mounted in silver, is described in an inventory of Charles VI. of France, showing that the object was regarded as worthy of association with the precious metals. The period of Italian Renaissance, however, was that of the true revival of ceramic art. The names of Luca della Robbia and Mäestro Giorgio da Gubbio were associated with those of painters and sculptors, while in France the works of Bernard Palissy were held in scarcely less esteem.

The third volume contains a careful account of the faïences of France, England, Holland, Sweden and Italy during the seventeenth and eighteenth centuries, the interesting experiments which resulted in the fabrication of tender porcelain, and the final discovery of true or kaolinic porcelain, after which the manufacture of tender porcelain ceased. There is a difference between the tender porcelain of England and that of France. The former M. Jacquemart calls *natural*, because composed of a sort of clayey kaolin, different, however, from the granitic. The latter is artificially made up of a vitreous frit and marl. This third volume is especially valuable to collectors, because of the remarkable number and variety of its *fac similes* of marks.

We now turn to a consideration of Mr. Treadwell's Manual. Its greatest defect is perhaps its incomprehensibility. Its author has undertaken to write on a subject requiring unusual clearness of ideas and language. We suspect him of being deficient in the first requisite, and we can only too readily prove him to be destitute of the second. It may seem ungracious thus to criticise the style of a writer who is evidently doing his best to enlighten his countrymen on a subject so full of interest both to him and to them, and nothing but the conviction that the habitual employment of ungrammatical forms of construction by many American writers, threatens a deterioration of the language in our hands, induces us to make a few extracts from the Manual as illustrative of the evil to which we refer. The following examples are selected almost at random. - The italics are ours. On page 91 Mr. Treadwell says: "Archæological study has peculiar fascination for the English student, consequently *her* research and its results are more extensive than those of *any other nation*." Page 140: "We are acquainted with the grace * * * * which

characterizes French productions. When looking at *their pictures*, the whole sympathy of our feelings rises to meet corresponding sympathy in the artist. * * * If *they* are painting an interior, it looks much like such an apartment as you would paint in your most finished ideal. If *they* are painting flowers, *they* look much like those that grow in your own garden." Again, page 143: "To attempt a pen description * * * would only involve the reader in *confusion of expressions*, which could only be *exemplified by the pieces themselves*." We confess that after this our confusion is beyond exemplification, and it is obviously absurd to hope to derive any exact information from a book, almost every page of which contains specimens of obscurity and bad grammar as extraordinary as those just quoted. So incomprehensible are the very definitions of technical terms with which Mr. Treadwell judiciously heads the divisions of his book, that the reader finds his perplexities rather increased than diminished by his study of them, and in matters of fact his statements are not by any means to be received with implicit reliance. Almost every assertion in his account of the history of the Portland Vase is at variance with the facts as stated in the second volume of the Life of Josiah Wedgwood. In fact, the notice of the vase in a work on pottery is scarcely less than a blunder, since the highest authorities on the subject have decided it to be the product of the combined arts of the verrier and the gem-cutter. On the other hand, Wedgwood's admirable imitations of it in his famous jasper-ware come legitimately into the domain of artistic pottery, and we have reason to believe that one of the original fifty made by him is now owned by a gentleman of Philadelphia.

In spite of its many defects we are glad that Mr. Treadwell has published his Manual. It will no doubt be extensively read, and if it should accomplish nothing more, it may at least induce some of those who are the possessors of hitherto unappreciated specimens of Eastern and European porcelain to ransack their odd corners and receptacles of supposed trash, and thus bring to light objects of value which might otherwise find their final resting-place in the kitchen, or worse still, the dust-heap. We most cordially unite with Mr. Treadwell in his final wish (which is very oddly expressed, by the way), that it may not be long before Americans can rejoice in artistic pottery of their own production. That we have the

mineral requisites is an undoubted fact, yet for the use of the porcelain works already established, the kaolin is all imported, and the tariff on the imported article is \$5 per ton; surely this ought to make it worth while to work the beds of kaolin which are known to exist. Until we get something worth buying of our own production, we can scarcely do better than feast our eyes and empty our purses on the exquisite specimens of the Worcester, Minton and Copeland manufactories, and the clever reproductions of Rouen and Majolic wares of the French and Italian works. The China establishments of Philadelphia and New York are full of temptations just now to the porcelain lover. The enterprise of the New York Metropolitan Museum in securing the Cesnola collection will soon be followed here we hope, and we believe that enough good specimens of porcelain might now be found in Philadelphia to make an interesting exhibition, could they all be collected.

W.

"RED COTTON NIGHT-CAP COUNTRY."¹

The attempts made in various periods to define poetry, illustrate what Mr. Carlyle says of the continual need of "stretching the old formula to cover the new fact;" and of at last casting the old aside entirely. No poet of our day has played such havoc with our best definitions of poetry as Robert Browning has. Milton says that poetry must be "simple, sensuous, passionate," but this man's work is never simple, sensuous only by starts, and devoid of what Milton meant by "passion." Coleridge says that poetry is "that form of composition which is opposed to works of science by proposing for its *immediate* object pleasure, not truth; and from all other species that have *this* object in common with it, it is discriminated by proposing to itself such satisfaction from the whole as is compatible with a distinct gratification from each component part." But, as Mr. R. H. Hutton well says, "most of Mr. Browning's poems might be described precisely as proposing for their immedi-

¹RED COTTON NIGHT-CAP COUNTRY, or Turf and Towers. By Robert Browning Pp. 220. Cloth. Boston. Jas. R. Osgood & Co., 1873. For sale by Claxton, Remsen & Haffelfinger.

ate object truth, not pleasure, and as aiming at such a satisfaction from the whole as is by no means compatible with any very distinct gratification from each component part." Ruskin "comes, after some embarrassment, to the conclusion that poetry is the suggestion by the imagination of noble grounds for the noble emotions." Yet he acknowledges the poetic greatness of his friend, our author, whose drift and purpose, even in describing emotion, is not to excite emotion, but to satisfy the intellect. To go back to antiquity,—Aristotle would have found it difficult to put Browning's poems under any one of the great classes into which he divided poetry. Dramatic they are not, for everywhere the poet's own personality is kept before the mind's eye; all the characters speak in his dialect, think in processes familiar to his mind; he never sinks and forgets himself. Lyric they are not, for the poet does not speak—or only rarely—in his proper person, nor to bear away his readers on the strong wings of his own thought and feelings. They are all what he calls a few of them—*dramatic lyrics*.

It has been justly said that the region which peculiarly belongs to poetry, that which lies between clear thought and sensuous passion, the sphere of mood and sentiment, is one that is almost entirely closed to Browning. He passes in swiftest transition between the regions that lie on either side of it; finding no rest for the sole of his foot where every other great poet rejoices to dwell as in his native air. This seems to spring from his one-sided masculinity of character; the feminine element, usually so marked in the poet, is in him utterly wanting, or nearly so. Hence his great success in depicting the mental attitudes of *men*, and his failure to represent sufficiently the mood and feeling, the delicate aroma of sentiment that gives distinctness and character to women. Save in *Pompilia*, he misses the flavor of the woman.

Mr. Browning's strength lies very greatly in his vast learning, and his imaginative grasp of the characteristics of different times and places and people. Hardly a period of the race's life, from the pre-historic Caliban down to Napoleon III., but has been the subject of his pen; hardly a situation of human life that he has not touched. Where any have been avoided, it has been mostly because they had become hackneyed themes; thus, save in *Bal-austion*, and one shorter poem, he has avoided classical subjects.

But Italy and the Renaissance seem to furnish the historical and geographical centres of his imaginative activity. Never in English speech have the two been so finely reproduced and made intelligible. The vividness with which this work has been done is the side of Mr. Browning's power that his readers apprehend most readily; we fear that the vividness surpasses the accuracy of his work. No American can read "Mr. Sludge, the Medium," and not be impressed by the failure to catch the tone and spirit of American life and thought—an impression which at least suggests a limit to his success in similar efforts to recall and revivify the distant in time and space, in regard to which we have not the same means of verification and correction.

In his last poem, Mr. Browning finds his subject in France under the second empire; and bases his story upon the facts brought to light during a recent and very remarkable trial in the courts of that country. The poem opens with a friendly discussion between the poet and Miss Thackeray, in which the two sides of the French character seem to be the chief topic. The humdrum commonplace side is symbolized by the white night-caps worn by the people of the little sea-coast town at which they are staying; that, we take it, is the side that the French satirists lash with pen and pencil under the impersonation called "Joseph Prudhomme." But there is another side also, everywhere present, always ready to spring into action, best symbolized by the red night-cap of 1793—the tiger side of the Gallic character. Here in this very village that side is exemplified most strikingly. The story of that quiet, sedate, well-to-do woman, the proprietor of that fine mansion illustrates what a capacity for fiery devoutness and fierce sensuality lies under the smooth surface of these commonplace Frenchmen. Her husband's story rather, not her own; and yet not her husband either, but her protector. He was the son of a wealthy Parisian jeweler—Miranda—and met this woman at the theatre, followed her home, casting himself at her feet, a slave for life, with one brief and memorable interruption of their relation. Not even the detection of the falsehood with which she first entertained him—not the discovery of the fact that she had a husband living in Paris, and was the mistress of another man, alienated him. He carried her off to the old chateau, that his father had left him, renovated it into a brand new palace, and lived absorbed in his

Clara Mulhausen. Only the sudden death of his mother, whose very French devotedness has not prevented her from quietly conniving at these irregularities, gives the priests and some designing cousins an opportunity of awakening the other side of Leon Miranda's nature—of rousing him to a paroxysm of remorse and repentance in which he burns his hands off to the wrists in a coal fire. With his recovery from the illness that follows, comes another reaction, and he recalls Clara, and turns his back upon both his ghostly counselors and his family advisors. To the latter, he disposed of the jewelry establishment at its full value, and again betakes himself to his chateau, but not to quiet. His mind is torn by conflicting emotions; his natural inclination to devoutness, when once called into action, cannot be laid to sleep again. While he will not give up his Clara, and for some reason cannot see his way to marrying her, although she was long ago divorced from her husband—he yet must make peace on some terms with the offended celestial powers. He lavishes gifts on the neighboring shrine of the Virgin; makes pilgrimages thither on his bended knees. He hugs his sin, and pours out his prayers in agony of remorse for his sinfulness. The priesthood encourage his generosity, refusing no gift, while insisting on no amendment of life. They remind us, in Browning's picture, of the canny Scot parson, who, when asked by the miserly old reprobate, on his death-bed, if the gift of £100,000 to the Church would increase his chances of heaven, answered, "A weel it might be worth trying." The poor man's head is seemingly completely turned by the inward conflict, the war of the flesh against the spirit, and of faith upon sense. At last, on a bright summer morning, he throws himself from the tower that tops his chateau, in the mad hope that the Virgin will set all right, by working a miracle in his behalf, enabling him to fly through the air to the distant church. Such a wonder, attested as this will be, must surely be worth her working, he thinks; will mightily help the good Ultramontane cause throughout all Europe, and convince all unbelievers, while it removes all obstacles to his marriage with Clara. (Whether those obstacles were social or canonical, the poet does not even hint to us.) He leaps, and is taken up dead. His will shows that he has left all his property to the Church, with usufruct for life to Clara, and the courts, after painful hearing of the case, sustain the will, to the great disappointment of the relatives.

One chief interest of the poem is its masterly analysis of the paroxysm of religious enthusiasm that at present possesses France, and which is chiefly striking to observers for the absence of any ethical elements in its operations and its effects. That France is at all the better, the freer from its sins against the plainest laws of God and instincts of duty, we see no evidence, no claim even in any of the glowing descriptions of the movement. Not a whit less keen is her hatred of the Germans for all this devotion to the Sacred Heart, these pilgrimages of millions, these pious songs mingled with political aspirations that must bear fruit—as every singer knows—in bloody war with fellow Christians, and perhaps in yet more bloody civil strife. Hers is, like Leon Miranda's, a repentance that means no break with cherished sins ; she brings her gifts to the altar with no care or wish to be first reconciled to her brother ; she asks to be forgiven with no intentions to forgive. Mr. Browning portrays the union of two such contradictory states of mind with his usual power and insight, but with his usual limitation of power ; we need to behold something more than Leon Miranda's train of thought and his hot passion for the woman who masters him, while she seems to obey. To fail to portray the moods of a man so feminine, is to come as far short of dramatic greatness as our author does elsewhere in depicting women.

We hardly think that the poem will add very greatly to his reputation. Most readers will be repelled by the disjointed and obscure introduction. The plot itself, though probably true as fact, is not probable truth, and the poet's range of choice in such matters is not as wide as reality. Fiction dares not always to be as strange as fact. All Mr. Browning's peculiarities of style, diction and uncouth metre, are here ; all his obscurities unrelieved by the Carlyle-like vivid lightning-flashes that light up a whole landscape in a single instant, a single line or pair of lines. Above all, the poem is unrelieved by any real nobleness in the actors ; the whole impression that it leaves is unpleasant and forbidding. The painter of Caponsacchi, Pompilia, Balaustion, can do better than this. And yet Miranda is one of the best drawn of a group of characters that only Browning in modern times has attempted, the self-deceiving semi-hypocrites ; and few passages from his pen surpass the soliloquy that precedes his strange and suicidal leap.

R. E. T.

NEW BOOKS.

THE NEW MAGDALEN. By Wilkie Collins. Harper & Bros. 50 cents. Pp. 120.

There are several reasons why the reading of an immoral French novel is a temptation, while an unpleasant fiction simply disgusts. To the making of Mme. de A. Bovary or Mlle. de Maupin, for example, there goes an immense amount of cleverness, exquisite art and much study. While the vernacular production is careless, slovenly, written to sell, and, what is worst of all, moral, so that we have not even the pleasure of eating forbidden fruit, and find nothing to compensate us for the nasty taste left in our mouths. The New Magdalen is a foolish, badly executed and happily impossible story, with most of the defects and none of the strong points of its writer. Its general purpose is indicated in its title, and we are not called upon, as we are certainly not desirous, to enter into, particulars. What good Mr. Collins proposed to accomplish through this book, it is hard to see. The circumstances are absolutely without precedent even if we were to make the very great concession that they could exist; that is to say, has it ever been that any one, the most charitable, the most liberal, the most free from vulgar prejudices, was placed in the position of seriously doubting whether it was not his or her duty to receive as a connection or friend into what is known as good society, using that term in the broadest sense it is capable of—one who had belonged to the wretched class, to which the euphemism, Magdalen, is applied. If not, what an utter waste of time and of mental force—not that much of the latter has been thrown away on the book—what an utter waste, we say, for a clever man to write a hundred and twenty pages of coarse twaddle, to tell us our duty in an event which has never, and as far as we know can never, happen. The plot of the New Magdalen is less elaborate than most of Wilkie Collins', and very much less ingenious. We are taken into the author's confidence early in the story, and so have not the stimulus of curiosity to carry us through to the end, our undertaking becoming more disagreeable with every page. As to the *dramatis personæ*, we may say that if we thought the heroine the most unpleasant thing in recent fiction, we were hasty, for the hero, the Rev. Julian Gray, who appears later in the book, leaves her altogether in the background, and if we are to accept his as a sample of clerical conduct, curates' flirtations are not the harmless pastime they are usually represented. The Rev. Julian is Broad Church, however, and so perhaps of a more vigorous type. There is besides the miraculous German doctor of "Miss Finch," turned up again,

an aristocratic aunt, the best character in the book, an aristocratic niece, whom the heroine personates, producing a difficulty, not unnaturally, between the two ladies, which difficulty furnishes all the complication there is in the story; and lastly an insane cousin, who engages himself to the heroine under the belief that she is as well connected as she assumes to be, and who, when the denouement comes, is made to behave in as shabby as the reverend hero does in a magnanimous manner. A clever friend suggests that the concisest criticism upon the work is to pronounce the title as the name of the Oxford College usually is, and with this recommendation we hand Mr. Collins' last perpetration to our readers.

BRESSANT,¹ by Julian Hawthorne. D. Appleton & Co., New York. Pp. 383. For sale by Porter & Coates.

BRESSANT is a novel which cannot be referred to any known class of fiction. Perhaps the most vivid impression it leaves upon us is of the character of the author. If we allowed ourselves the dangerous amusement of conjecture, we should say that the writer was a young woman of excitable imagination, limited information, and a strong desire to make that information last through the prescribed number of pages. This last trait is so conspicuous as to be really amusing. Thirty pages are occupied before the hero is introduced. In those thirty pages we are informed that Professor Valeyon is an old gentleman, living in the parsonage of a country town, with his two daughters. There is positively nothing more of any importance revealed. How the pages are filled will be evident from a quotation.

"Professor Valeyon paused in his soliloquy, like a man who has turned into a closed court under the impression that it is a thoroughfare, and stared down with upwrinkled forehead at the sole of his kicked off slipper, indulging the while in a mental calculation of how many days it would take for the hole near the toe to work down to the hole under the instep, and thus render problematical the possibility of keeping the shoe on at all. It might take three weeks, or say at the utmost a month; one month from the present time. It was at the present time about the 15th of June, the 14th or the 15th, say the 15th; well, then, on the 15th of July the slipper would be worn out; in all human probability the weather would be even hotter then than it was now; and yet

¹ After writing this notice, we learn that the author of *Bressant* is the son of the illustrious Hawthorne. We leave our criticism, however, exactly as it was written, because it expresses an opinion, which is, perhaps, the more likely to be impartial since it was formed in total ignorance of the person criticised. It will assuredly not be to the advantage of Mr. Julian Hawthorne that his novel should be tried by the standard of *The Scarlet Letter*, or *The House of the Seven Gables*.

in the face of that heat he would be obliged to go over to the village, get Jonas Hastings to fit him with a new pair, and then go through the long agony of breaking them in. At the thought great drops formed on the old gentleman's nose and ran suddenly down into his white moustache."

The house is minutely described, then the garden, the porch, the road, and a vile little fountain in the garden which comes in, like a Greek chorus, at all the tragic pauses of the narrative. Whenever Bressant has made ardent love to either of the Professor's daughters, and is waiting in breathless anxiety for the result, the tinkling of the fountain is heard, and reminds the author of Time, or Eternity, or something else totally irrelevant, which will fill up another of the regulation pages. A worse case of book-making we never saw.

Perhaps, however, this dullness is an artistic introduction of the hero. A remarkable man is Bressant, when at length he descends upon the family at the parsonage. He is tall, "with an air of such marvelous intellectual and physical efficiency, that it seemed to the Professor as if each one of his five senses might equal the whole capacity of a common man." There is, however, some mysterious deficiency in him, some absence of human love and emotion which reminds us, and perhaps reminded the author, of Margrave in Bulwer's "Strange Story." Bressant's confidence in his own ability is considerable. He explains the object of his coming:

"About a year ago I decided to become a minister. I concluded I could not do better. No one has such a chance to move the world as a minister. I thought of Christ, and Paul, and Luther. They were all ministers, and who had greater power? * * * But I hope I may discover a better method; I shall have the advantage of their experience and mistakes. Perhaps I shall develop and carry out to its conclusion the dogma of Christianity. That would be well as a beginning."

Professor Valeyon undertakes to instruct this modest youth for the ministry. Here is a stock situation—two sisters in the house, with one young man. The practiced novel-reader knows at once that Sophie and Cornelia will both fall in love with Bressant. Equally of course, the sisters are the antipodes of each other. Cornelia is the full-blooded, womanly, earthly one, captivating Bressant through his senses. Sophie is the mild, pure, angelic, unreal creature, who leads him up to the level of her own spirit. "He liked to talk and argue with her; to dash waves of logic, impetuous but subtle, against the rock of her pure intentions and steady consistency." The reader will be glad to hear that he failed. "She usually had the best of the encounter." It follows necessarily that when Cornelia comes back, and Bressant's *pen-*

chant for her revives, Sophie should discover it, and should die of consumption and a broken heart, bequeathing her love to her sister.

There is a most intricate plot, which we are not quite sure that we apprehend. Bressant's parentage is shrouded in mystery. He appears at the outset to have no mother living. Then his mother is a boarding-house keeper in the same village; and finally it turns out that she is a fashionable lady in New York, who dies at last of opium eating; it being well known that most city people in good society are devoted to opium. Cornelia, indeed, has a very bad time in New York. "In the afternoons and evenings some admiring, soft-voiced young gentleman was always at her side, offering her his arm on the faintest pretext, or attempting to put it around her waist on no pretext at all; who always found it more convenient to murmur in her ear than to speak out from a reasonable distance; whose hands were always getting into proximity with hers, and often attempting to clasp them." No wonder that the author lingers so lovingly over the smallest details of country life. Better be with a spout in a garden than with a soft-voiced young man in New York. In ten days or a fortnight, Cornelia's nature is entirely changed, and she returns to work mischief in her country home.

With all this trash, there are some good things in the book; some touches of power which make us feel that, with fuller experience and riper judgment, better things may be hoped for from the author. For instance, on page 144, there is a natural and well-conceived scene between Bressant and Cornelia, on the morning of her departure for New York. Let us give Mr. Julian Hawthorne credit for an occasional felicity of thought, and trust that by a closer study of our degraded city life he will add to the verisimilitude of his next novel.

R. S. H.

MARTIN'S VINEYARD. BY AGNES HARRISON. London: Sampson Low, 1872. Pp. 320, is a very clever novel, done in that "low tone" which real artists love and real lovers of art appreciate. It is not a little curious that a tale so thoroughly American, so full of local light and shade, should come to us with an English imprimatur, and the name of a writer known to us only by some contributions to English magazines. Quaker life in a New England village was no doubt striking enough to make a lasting impression on a traveler alive to novel effects, and to this we perhaps owe the book, which, in the shape of a romance, reproduces very effectively, the "interior" of a Quaker household on the Massachusetts coast, with all its contrasts of that quiet exterior to which all outward exhibition of feeling is subdued, and of that depth of passion which works with the more force because it is

long concealed. But better even than the Quaker love story, better, too, than the clever sketches of nature as seen in a New England coast village, is the life of the village; the various types are well-chosen, and made to play their parts naturally and to the full development of the story. It is a "goody" book, but without any cloying religious cant, or that kind of sensationalism which is as bad in a good book as in one purposely perverted from the right use of novel writing and romance reading. It is no small task thus to subdue one's self to the book in hand; but here the author shows, along with some signs of newness in her work of authorship, good study of real life, and of the best models drawn from it, so that there is in every way, promise of a growth that will be the better for beginning, as this book does, in a modest way.

THE TOUR OF THE WORLD IN EIGHTY DAYS. By Jules Verne. Boston: Osgood & Co.; pp. 291. For sale by Claxton, Remsen & Haffelfinger.

This is a story of the kind which only a Frenchman can write uniting careful scientific calculation with the wildest romance so skillfully as to produce a very agreeable result. The same sort of narrative has been attempted by English authors—Poe, for instance, and the writer of the "Moon Hoax"—but they were not adroit enough to hide the line of junction between the possible and the impossible in their stories. M. Verne has a dexterity, and a command of what painters call local color, which takes the imagination captive; and we rise from his pages believing, for the nonce, that "the tour of the world in eighty days" is entirely practicable. The story turns on a wager made in a London club-room. Mr. Phileas Fogg, one of those imperturbable Englishmen dear to Gallic fiction, bets £20,000 that in eighty days he will go around the world, and be back in that same club-room. He takes with him a French servant, Passepartout, whose adventures prove as entertaining as his master's. The route is eastward, through Europe to Asia, and across to America, thence through the United States to New York, and back by the Atlantic. What remarkable adventures Mr. Fogg encounters, how he gets a wife by his journey, and whether or not he wins his bet, we leave the reader to discover; heartily recommending the book as an amusing companion for the summer.

R. S. H.

LIFE IN DANBURY. BY THE DANBURY NEWS MAN. Boston: Shepard & Gill; pp. 303.

We are sorry for the person who has not noticed and enjoyed those items in the daily papers which tell of the doings, sayings,

fortunes, and misfortunes of the "Danbury Man." Who, after reading of tiresome Carlist skirmishes, of the last failure of the Italian Premier to form a cabinet, of the payment of another milliard to Germany, of the election of an old Catholic bishop, or of the pathological condition of the Pope's legs—has not turned, with immense relief, to the narrative of the Connecticut gentleman's undertaking to show his wife how *his* mother used to make cakes, and how she, the better-half, received the suggestion; with what effect upon his, the Danbury citizen's, head: or to the brief announcement that the editor of the local page does not lecture—*he is married*; or to the observation that it takes years of careful training to convince a boy in that vicinity who is taken sick on Saturday, that there is not a screw loose somewhere in the universe; or again how a Danbury plumber, with tongs and his sheet-iron furnace in his hands, fell down-stairs, and says now "that his father forced him to learn the trade of plumbing, and that it was not his own choice." We have been to Danbury; it is rather a picturesque village, seen from the distance, surrounded by a circle of steep Connecticut hills, but, at the early period we saw it, gave no signs of its subsequent fame—the distinction of having produced the best-sold book of this publishing season. The author, first of all, gives his reason for writing the book, and among things says that "various authors have various reasons for bringing out a book, and this reason may or may not be the reason they give to the world. I know not, and care not. It is not for me to judge the world *unless I am elected*. It is a matter which lies between the author and his own conscience, and I know of no place where it would be less likely to be crowded." To go through a volume of this sort, as we have had to do, is wearying beyond description, for it should be dipped into at odd times, and not read continuously. For the reader's benefit we will take some of the passages we have marked, and with the necessary explanation give them as specimens of this last production of what is beginning to be specially known as American humor: First, then, is a story about a man who undertook to repair a saw-mill by supplying it with a certain kind of wheel. It may be mentioned in passing that Mr. Watts didn't know any more about a rag-wheel than I do, and the information his assistant possessed on the same subject was also considerably *hampered by limits*." Next a tale of the Albany boys, who were divided into the "Hills," and the "Creeks," the one having possession of the high ground in the outlying districts, and the other holding to the flats; and how the writer, who belonged to the latter, was tempted to follow a funeral to the cemetery on the ridge, and while there was accosted by a pugnacious looking youth of his own age, who came up and kindly inquired: "Are you a Hill, or a Creek?" "Remembering," he says, "my moth-

er's teachings, I was just about to admit that I was a 'Hill,' when the other boy, to condense the story, knocked him down without waiting for an answer." The narrator, who had been engaged in swapping tops, had his face cut, lost two of his teeth, etc., but he adds: "I preserved my honesty, and eventually recovered the top. A man may lose his friends, teeth, and everything that makes life dear, but if he remains truthful people will respect him, so they say." Again, in speaking of some disturbance, he says: "And then ensued the most dreadful noise I ever heard in all my life, and *I have been married eighteen years.*" *Per contra* to this gibe, read the description of the different ways which a man and a woman respectively adopt to drive a hen into the coop. These sections on "Our Proletariat" and "Anger and Enumeration," are good of their kind. He tells in one place of the difficulties the Danbury man underwent in getting shaved on a certain occasion, and sums up: "And yet women are dissatisfied with their sphere." On the subject of gloomy scientific predictions, we are told that a Dr. Trall has discovered that in seven years Jupiter, Saturn, Uranus, and Neptune, will approach nearer the earth than they have been in eighteen hundred years, and the result will be a pestilence. "When Congress," and here we are in entire sympathy with our Danbury brother, "when Congress has the manliness to make astronomy an indictable offense, then we shall have relief from these things, but not before." The next articles worth the reading are "Young Edward" and the "Bad Dog." Then an account of the kicking of a zebra, and how "in ten minutes" after the kicking has begun, "the vicinity is bare of life *as some of our exchanges.*" We are not clear whether the Danbury man is a free-trader or a protectionist, but "Coons as a Revenue" is certainly a forcible paper on labor and profit, and easier reading than political economy usually. As we have the fear of the copy-right laws of our country before our eyes, we will make no more extracts, but adding, that this book is really amusing in places, often vulgar, still oftener stupid, but on the whole, up to the ordinary standard of its kind, we take a friendly leave of it.

SCIENCE PRIMERS IV.—PHYSICAL GEOGRAPHY. By Prof. Geikie.

A most useful series of "Science Primers" is now publishing by Messrs. Appleton. They contain only the facts which every one, however unscientific, ought to know; what may be called the Benjamin Franklin philosophy. Most of us have learned it at school, and have had time to forget a good deal of it since our school days. These little books will recall it to us, and will add much that has been discovered in the last decade. Moreover, they will arrange our knowledge according to those great fundamental conceptions which have, in our time, given a new significance to the laws of nature.

BOOKS RECEIVED.

Driven from the Path; a Novel. Edited by Dr. Charles Smart. New York D. Appleton & Co., 1873. Pp. 467. Cloth. For sale by Porter & Coates.

A School Manual of English Etymology and Text-Book of Derivatives, Prefixes and Suffixes. With numerous exercises for the use of schools. By Epes Sargent. Pp. 264. Cloth. Philadelphia: J. H. Butler & Co.

Half-Hour Recreations in Popular Science. No. 8. On Yeast Protoplasm, and the Germ Theory. By Thos. H. Huxley, F. R. S. The Relations Between Matter and Force. By Prof. John H. Tice. Boston: Estes & Lauriat, 1873. Pp. 40. Paper, price 25 cents.

Report of the Commissioner of Education for the year 1872; Annual Statement of the progress of Education in the United States, and Statistical Tables Relating to Education in the United States. Pp. 1018. Cloth. Washington: Government Printing Office, 1873.

Circulars of Information of the Bureau of Education. No. 1. 1873. Historical Summary and Reports of the Systems of Public Instruction in Spain, Bolivia, Uruguay and Portugal. No. 2. 1873. Schools in British India.

The Nature and Utility of Mathematics, with the Best Methods of Instruction Explained and Illustrated. By Charles Davies, LL.D., Emeritus Professor of Higher Mathematics in Columbia College. New York: A. S. Barnes & Co., 1873. Pp. 419. Cloth, \$1.50.

The Liberal Education of Women: The Demand and the Method. Current Thoughts in America and England. Edited by James Orton, A. M., Professor in Vassar College. New York and Chicago: A. S. Barnes & Co. Pp. 328. Cloth, \$1.50.

Miss or Mrs.? and other stories. By Wilkie Collins. Philadelphia: T. B. Peterson & Bros. Pp. 141. Paper, 50 cents.

